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Old LaSalle Dump
ILD 984774950
Superfund/Tech

CERCLA

Integrated Assessment



Illinois Environmental
Protection Agency

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1. INTRODUCTION

The Illinois Environmental Protection Agency's (Illinois EPA) Office of Site Evaluation was tasked by the United States Environmental Protection Agency (USEPA) to conduct a CERCLA Expanded Site Inspection at the Old LaSalle Dump located in LaSalle, Illinois. This investigation was conducted to help determine the levels of contamination present at the Old LaSalle Dump and adjacent Huse Lake. The City of LaSalle hopes to develop the Old LaSalle Dump property into a parking lot and to utilize the area of Huse Lake adjacent to the dump as a marina. The U.S. Army Corp of Engineers has proposed dredging Huse Lake as part of a Section 206 wetland restoration project. Congressman Jerry Weller, representing the 11th District of Illinois, has been an advocate and supporter of both of these projects. The information gathered during the environmental investigation will be used to determine whether any remediation will be required prior to developing the property and dredging Huse Lake.

In April of 2001, the IL EPA's Office of Site Evaluation prepared and submitted a work plan for the Old LaSalle Dump to the Region V offices of the USEPA. The sampling portion of the Expanded Site Inspection was conducted in two phases. On the week of April 16, 2001 the sampling team collected forty-one sediment samples from Huse Lake and on the week of November 26, 2001 fifty-four soil samples were collected from the Old LaSalle Dump property.

2. SITE BACKGROUND

2.1 SITE DESCRIPTION

The Old LaSalle Dump is an approximately six-acre inactive dump site located within the annual

floodplain of the Illinois River. The site is legally described as being located in the east half of the northwest quarter of Section 22, Township 33 north, Range 1 east in LaSalle County, Illinois. Surrounding the site on its north, west and south sides is Huse Lake, a backwater lake of the Illinois River. To the east of the site is Route 351 and wetland areas. The City of LaSalle, situated on the bluff of the Illinois River, is approximately one-thousand feet to the north. Approximately eight-hundred feet north of the site is the Illinois and Michigan Canal, a National Historic Landmark. Figures 1 and 2 show the location of the site and Figures 3 and 4 show aerial photographs of the site. A four-mile radius map of the area surrounding the Old LaSalle Dump site and a fifteen-mile surface water drainage map are provided in Figure 8 and Figure 9 of this report, respectively.

When the Old LaSalle Dump was closed, clean fill including bricks, concrete slabs, wood and a wide variety of other construction-type wastes were placed over most of the site. This resulted in a cap which would help prevent human contact with wastes in the dump, but not prevent the infiltration of rainwater and flood waters of Huse Lake. Since the time of the placement of fill, the dump has become well vegetated with trees covering the majority of the property.

2.2 Site History

According to a previous CERCLA report, the Old LaSalle Dump was used as a general refuse disposal area for the City of LaSalle from the early 1930's until approximately 1966. While in operation, it is unclear whether the City of LaSalle actually operated the landfill or not, although they were not the owners of the property. The site and adjacent property was owned by a family residing in LaSalle. The property is currently held in a land trust whereby numerous of these

family members hold ownership.

It is believed that during its years of operation a wide variety of residential and industrial wastes were deposited at the Old LaSalle Dump. The LaSalle Electric Utility Company (EUC) disposed of wastes at the site in the 1960's. According to former employees of EUC and a former city official, EUC dumped rejected capacitors containing Polychlorinated Biphenyl (PCB) oil and cleaning solvents into the dump. According to a resident who previously trucked wastes to the landfill, EUC would ship one to two tandem truck loads (ten cubic yards per tandem) of wastes to the Old LaSalle Dump at least once and sometimes twice per week in the early to mid 1960's.

The City of LaSalle closed the dump around 1966 and then allowed people to deposit clean fill over the dump, resulting in a highly permeable cover or cap on the dump. Prior to its use as a dump, the site was a low-lying wetland. Currently, the land is undeveloped and not utilized for any specific purposes, however, the City of LaSalle hopes to build a parking lot on the property in the future.

3. EXPANDED SITE INSPECTION ACTIVITIES AND ANALYTICAL RESULTS

3.1 INTRODUCTION

This section outlines the procedures utilized and observations made during the CERCLA Expanded Site Inspection conducted at the Old LaSalle Dump. Specific portions of this section contain information pertaining to the reconnaissance inspection, site representative interviews, and field sampling procedures. Also included in this section is information about the soil and sediment samples that were collected and a description of the analytical results.

3.2 RECONNAISSANCE INSPECTION

In April of 2001, Mr. Peter Sorensen of the Illinois EPA's Office of Site Evaluation conducted a reconnaissance inspection of the Old LaSalle Dump. The site reconnaissance included a visual inspection of the former dump area and Huse Lake to become familiar with the property, to identify potential sampling locations, and to survey the surrounding land uses.

The reconnaissance revealed that the Old LaSalle Dump property is an inactive dump area that is approximately six-acres in size located approximately a quarter-mile south of the City of LaSalle. Surrounding the site on its north, west and south sides is Huse Lake, a shallow backwater lake of the Illinois River. On the ground, fill material such as bricks and concrete slabs can be seen throughout the property. Much of the ground is also covered with silt that has been deposited during floods which periodically cover the entire property. An occasional capacitor or capacitor remains were observed at the ground surface. These are especially common along the shore of Huse Lake on the northeastern portion of the property. The property is well vegetated with medium-sized trees, grasses and bushes growing on the majority of the property.

3.3 CONVERSATIONS WITH SITE REPRESENTATIVES

Mr. Peter Sorensen of the Illinois EPA's Office of Site Evaluation held conversations with Mrs. Pam Broviak, City Engineer representing the City of LaSalle, and Mr. John Duncan, representing the family trust that owns the Old LaSalle Dump property. During these conversations, the upcoming sampling event at the Old LaSalle Dump was discussed and the CERCLA Expanded Site Inspection process and the specifics concerning the sampling activities of the upcoming

sampling event were explained. In October of 2001, an access letter was sent from the Illinois EPA to Mr. John Duncan to confirm the sampling event and offer the opportunity to split samples. Mr. Duncan verbally agreed to allow the sampling team access to the property and did not desire to split samples with the Illinois EPA.

3.4 SEDIMENT SAMPLING

Forty-one sediment samples were collected from Huse Lake in April of 2001 to help determine whether contaminants have migrated from the Old LaSalle Dump into the lake. These samples were analyzed for the complete Target Compound List (see Appendix C) with the exception of volatiles. Thirty sediment samples were collected from the top-foot of sediment and eleven were collected from a depth of 2 $\frac{1}{2}$ to 3 $\frac{1}{2}$ feet of sediment. The locations of the sediment samples can be seen on Figures 6 and 7. The complete analytical results from the sediment samples can be seen in Table 4 and a summary showing the PCB results can be seen in Table 6. All sediment samples were collected using hand-augers which were used by the sampling team while in a small john-boat.

3.5 SOIL SAMPLING

Fifty-four soil samples were collected from the Old LaSalle Dump property in November of 2001 to help determine whether contamination exists at the former dump area which could pose a hazard to human health or the environment. These samples were analyzed for the complete Target Compound List (see Appendix C) with the exception of volatiles.

The soil samples were collected with the aid of a backhoe which was used to dig pits at twenty-six locations throughout the property. The majority of these pits were dug to a depth where they reached native soils underlying the waste materials of the dump. The locations of these pits can be seen in Figure 5. Native soils ranged in depth from six feet to seventeen feet with the majority of the pits encountering native soils in the nine to twelve foot range. In the majority of the pits, a soil sample was collected from the underlying native soil layer to determine whether contamination from the wastes above had migrated into the underlying soils. Within most pits, another soil sample was collected from various depths within the wastes of the dump. Table 2 describes what was found in each pit and the depth at which groundwater and native soils were encountered. The complete analytical results from the soil samples can be seen in Table 3 and a summary of the PCB and dioxin results can be seen in Table 5.

4. IDENTIFICATION OF SOURCES

4.1 INTRODUCTION

This section will briefly discuss the hazardous waste source which has been identified through CERCLA site investigation process.

4.2 Landfill

The Old LaSalle Dump is approximately six-acres in size and was used as a general refuse disposal area from the early 1930's until around 1966. During this time, the site was used as a dump area for a variety of wastes which were burned on-site (Figure 4 shows an aerial photograph of the site at a time when burning was occurring). During the 1960's, LaSalle's

Electric Utility Company used the dump as a disposal area for rejected capacitors and cleaning solvents. The capacitors contained oil which had PCBs in it and these were burned with the rest of the refuse at the site. In 1966, a highly-permeable cap was placed on the dump consisting of bricks, concrete and a variety of other construction materials. There is no engineered liner underlying the dump, however, the native soils beneath the dump appear to consist of a fairly tight silty, clay which could possibly act as a barrier for contaminants located in the dump.

During the sampling event conducted in November of 2001, a backhoe was utilized to dig twenty-six pits throughout the property. As mentioned earlier, most of these were dug to a depth of the native soil underlying the dump. By digging these pits, a very good idea of what was located throughout the dump was gathered. Much of the property has a layer of bricks and concrete, which were used as the cap, along with an abundance of silty soil which has been deposited as a result of the flooding of Huse Lake. Underlying this top layer is the wastes which were deposited in the dump. This waste layer consists mainly of a cindery material left from the burning at the site and varies in depth from the ground surface to seventeen feet. Table 2 provides a description the depths and types of wastes encountered in each test pit. The cinders contain the remains of glass bottles and capacitors. The capacitors were located at locations throughout the dump but were mainly found within the top five feet of soil. In some test pits they were very abundant while in other pits only a small number or no capacitors were found.

As mentioned earlier, fifty-four soil samples were collected from the Old LaSalle Dump to help determine the level of contamination that exists at the site. Although some other contaminants

were found at some sample locations, the contaminants of concern are PCBs and dioxins. The presence of PCBs are the result of the capacitors that were disposed of at the site. Dioxins are created when PCBs are burned and the dioxins found on-site were most likely produced by the burning of the capacitors at the dump. The following table lists the number of samples that were found to contain PCBs at various levels:

0 – 15 ppm	33
15 – 50 ppm	6
50 – 100 ppm	5
100 – 200 ppm	4
200 – 300 ppm	2
over 1000 ppm	4

The four samples with the highest concentrations of PCBs were all found in the center to western portions of the former dump area at a depth of five feet or less. These four samples are highlighted in yellow on Figure 5. The complete analytical results of the samples collected in the Old LaSalle Dump can be seen in Table 3 and Table 5 with the locations of the samples being shown in Figure 5.

5. MIGRATION PATHWAYS

5.1 INTRODUCTION

The CERCLA Site Assessment Program identifies three migration pathways and one exposure pathway by which hazardous substances may pose a threat to human health and/or the environment. Consequently, sites are evaluated on their known or potential impact to these four pathways. The pathways evaluated are groundwater migration, surface water migration, air migration and soil exposure. The following section discusses these pathways and the site's impact or potential impact on them and on the various human and environmental targets. These targets include human populations, fisheries, endangered species, wetlands and other sensitive environments.

5.2 Groundwater Pathway

The local geology of the Old LaSalle Dump area is characterized by Wisconsin glacial till overlying, and being interconnected with, the bedrock. The bedrock consists of fractured Silurian and Ordovician-aged dolomites and shales and St. Peter Sandstone. An aquifer system consisting of sand and gravel, limestone and sandstone is the supplier of private and municipal drinking water within a four-mile radius of the site.

The cities of LaSalle and Peru both have municipal wells located within one-and-a-half miles of the site (Figure 8 shows the locations of these wells). LaSalle's four municipal wells are located approximately one-and-a-half miles east of the site and receive their water from a depth of sixty to seventy feet in the alluvial deposits of the Illinois River. No confining geological layers exist

above this aquifer to effectively prevent contaminants from above from entering the aquifer.

Despite this, the LaSalle's drinking water supply is currently not thought to be in danger due to the facts that their wells are located over a mile away from the site and that the groundwater beneath the Old LaSalle Dump flows directly into Huse Lake.

Peru's three municipal wells are located approximately one-and-a-half-miles west of the site and receive their water from a depth of 2,591 to 2,764 in the St. Peter Sandstone. Overlying this aquifer is an approximately 180 foot thick confining layer of Maquoketa Shale which acts as a barrier for contaminants from above from entering the aquifer. Due to this, the distance of these wells from the site and the movement of groundwater beneath the Old LaSalle Dump into Huse Lake, Peru's drinking water supply is not thought to be in danger of receiving contaminants from the site.

Due to the fact that neither LaSalle or Peru's water supplies are thought to be at danger from contaminants present at the Old LaSalle Dump, no groundwater samples were collected during the November, 2001 sampling event.

As mentioned earlier, after the dump was closed a layer of bricks, concrete and other construction materials was placed over the surface of the site, creating a permeable cap over the dump. This allows rainwater to infiltrate the dump and thus potentially carry contaminants from in the dump down into the underlying groundwater. Groundwater at the site is found at a very shallow depth. During the November, 2001 sampling event at the site twenty-six pits were dug at the site to gain

access to soil sampling locations. The majority of these pits were dug to a depth that they hit groundwater which was found to vary from a depth of five to fourteen feet. Table 2 provides information on the depth of groundwater at each test pit. At most locations, the groundwater was encountered within the wastes of the dump. Because of the shallow depth of groundwater, the levels of contamination within the dump, and the proximity of Huse Lake, the movement of contaminated groundwater into Huse Lake is of concern.

5.3 Surface Water Pathway

The CERCLA Site Assessment process looks at potential human and environmental targets along a 15-mile surface water target distance route from the site. The Old LaSalle Dump is located within the annual floodplain of the Illinois River and is surrounded on its north, west and south sides by Huse Lake, a back water lake of the Illinois River. Huse Lake is very shallow, usually only containing a few feet of water in it. Both surface water and groundwater drainage from the site enters Huse Lake and then flows west for half-a-mile and enters the Illinois River, where it then flows west. The 15-mile target distance route for drainage from the Old LaSalle Dump can be seen in Appendix B.

Along this surface water route, both Huse Lake and the Illinois River are utilized by people for fishing and for other recreational purposes. In addition, the Illinois Department of Natural Resources records indicate that several sensitive environments exist along the 15-mile surface water pathway. Located approximately 13 miles downstream of the site is the Spring Lake Heron Colony. Additionally, two wildlife refuges, the 1700-acre Lake DePue Fish and Wildlife Area and

the 664-acre Donnelly Wildlife Management Area, exist along the surface water route. Approximately 27 miles of total wetland frontage exists along the 15-mile surface water route (counting frontage on both sides of the Illinois River). Illinois EPA records do not document the existence of any surface water drinking intakes along the 15-mile surface water route. Having mentioned these potential targets downstream of the site, based upon the low levels of contamination found in the sediment samples at locations away from the dump, it is not believed that contamination from the Old LaSalle Dump has impacted any other waterways than Huse Lake.

Forty-one sediment samples were collected from Huse Lake in April of 2001 to help determine whether contaminants have migrated from the Old LaSalle Dump into the lake. Thirty of these samples were collected from the top-foot of sediment and eleven were collected from a depth of 2 ½ to 3 ½ feet of sediment. The locations of the sediment samples can be seen on Figures 6 and 7 and the analytical results can be seen in Table 4 and Table 6.

The contaminant of concern which was found in the Huse Lake sediments was PCBs. At other sites in the U.S. where sediments have been contaminated by PCBs, the U.S. EPA has established a cleanup goal of the sediments to one part per million (1 ppm) average in surface sediments. This report will discuss the levels of PCBs found in the Huse Lake sediments in comparison to this cleanup goal of 1 ppm. It should be made clear, however, that at this time a cleanup goal for Huse Lake has not been determined and may vary from this 1 ppm value.

As mentioned previously, the sediment of Huse Lake were collected at two depths: the top foot and from a depth of 2 ½ to 3 ½ feet. In the top foot of sediment, the areas of Huse Lake with a greater than 1 ppm average PCB levels are located on the portions of the lake to the north and west of the dump area. Figure 10 shows the levels of PCBs found in the shallow sediments of Huse Lake with an outline showing the approximate areas that exceeded 1 ppm of PCBs on average. For ease of reading, a copy of Figure 10 is shown on the following page of this report. It appears that the areas south of the dump as well as the majority of Huse Lake away from the dump do not contain PCBs at levels exceeding 1 ppm on average.

In the sediment collected at the 2 ½ to 3 ½ foot levels, the areas of Huse Lake with a greater than 1 ppm average PCB levels are located in a limited area along the north edge of the former dump. Figure 11 shows the levels of PCBs found in the deeper sediments of Huse Lake with an outline showing the approximate areas that exceeded 1 ppm of PCBs on average. A copy of Figure 11 is shown two pages following this one.

Huse Lake is used as a fishing location for local residents. A trait of PCBs is that they have the potential to bioaccumulate in fish. One factor that could potentially decrease this accumulation is the fact that Huse Lake periodically goes completely dry. Because of this, the local fish need to migrate into the Illinois River, which decreases their exposure to the Huse Lake sediments. At this time, no fish studies have been conducted to determine whether fish in the lake have taken up contamination from the sediments and would pose a threat to humans or animals that eat the fish. Based upon the elevated levels of PCBs which were found in the lake sediments, the Illinois

Department of Public Health recommends that fish in Huse Lake be tested for PCB levels to determine whether a fish advisory should be put into place for the lake.

5.4 Air Pathway

It is not believed that the air migration pathway is of concern at this time. The vast majority of the contamination present at the site is buried under a layer of construction debris and silt brought in from floods. The potential for windblown particulates to carry contamination off-site exists, however, the site is well vegetated which reduces this potential. In addition to this, the site is located far away from any residential areas which could be impacted. For these reasons, and the fact that no complaints have been received regarding the affect of the site on air quality, the air migration pathway is not currently of concern.

5.5 Soil Exposure

People are occasionally on the Old LaSalle Dump property as they utilize it as an area to fish in Huse Lake from. In addition, the remains of campfires and the presence of discarded soda and beer cans were observed on the property indicating that it is occasionally utilized for recreational activities. The nearest residences are located a little over a quarter-mile to the north of the site in LaSalle.

Fifty-four soil samples were collected from the Old LaSalle Dump property in November of 2001. These were analyzed for the Target Compound List (with the exception of volatiles) with six samples also being analyzed for dioxins. All of these samples were collected from test pits below

the ground surface. Many of the samples indicated the presence of PCBs and dioxins at levels that would be of a human health concern if they were located at the ground surface. However, since the samples were collected several feet below the ground surface the analytical results can not be appropriately compared human health benchmarks.

To determine whether people using the site may be exposed to hazardous levels of contaminants, surficial soil data is needed. Because of this, data gathered from a 1996 CERCLA sampling event at the site will be quickly discussed here. During this sampling event, nine surficial soil samples were collected at the site. The table below shows the Total PCB levels that were found in these samples.

Sample Number	S1	S2	S3	S4	S5	S6
Total PCBs (ppm)	.17	.06	.39	not detected	3.5	1.7

At other locations considered recreational properties in the U.S. where surficial soil has been contaminated by PCBs, the U.S. EPA has established a cleanup goal 10 ppm PCB average in the top foot of soil. As can be seen in the table above, none of the surficial soils exceeded this guideline. Again, it should be noted that no surficial PCB cleanup have been established for the Old LaSalle Dump, thus the cleanup goal of 10 ppm is just being used as a comparison value for discussion.

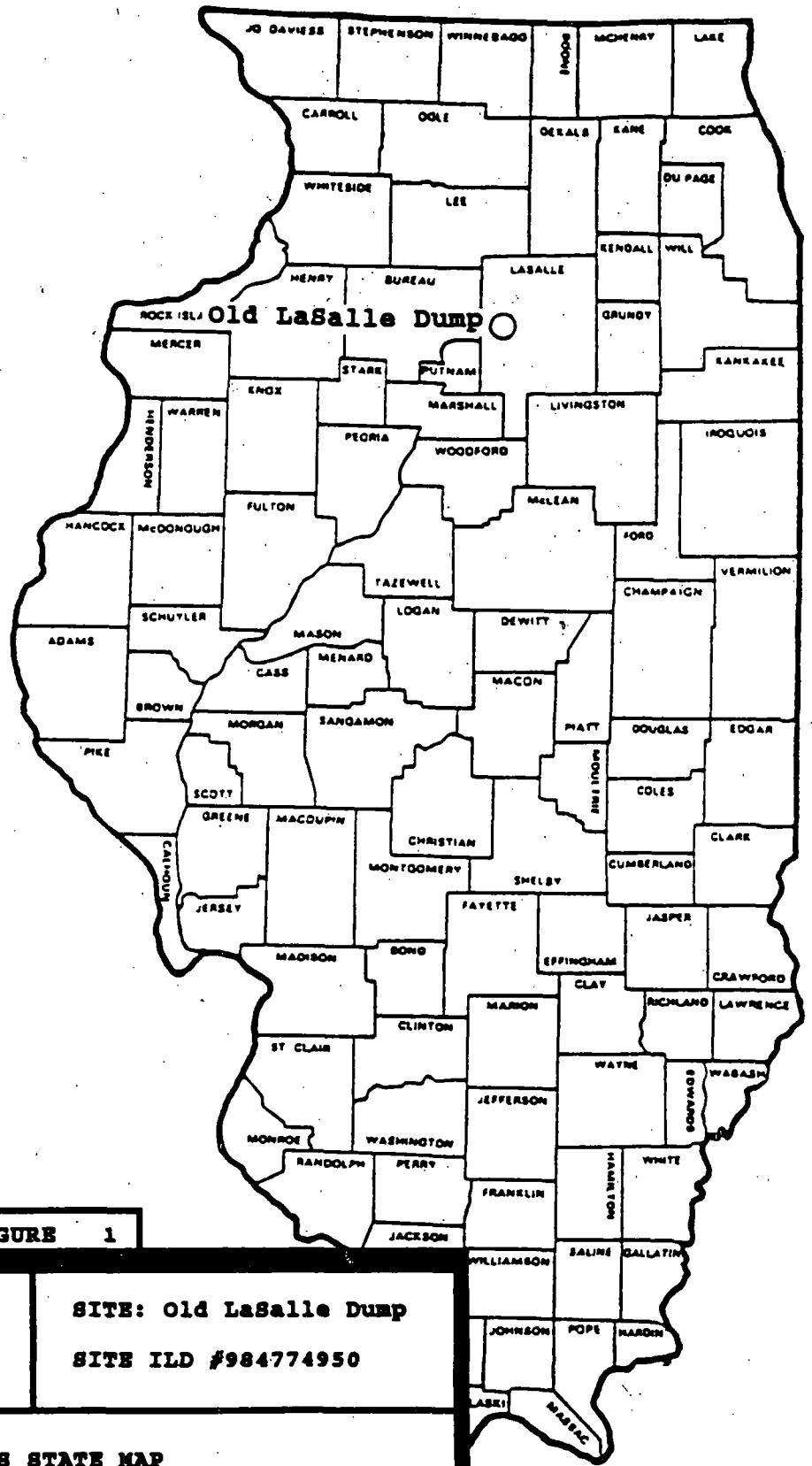
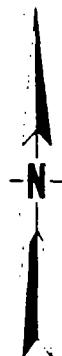
Based upon limited surficial soil information, it appears that the majority of the contamination at the site is located below the ground surface rather than on the surface where people could

potentially be exposed to it. Because this information is limited, the Illinois Department of Public Health has recommended additional surficial sampling to help determine if any risk exists at the site for occasional users of the property.

Appendix A

Figures

SITE LOCATION





SOURCE: IDOT, 1992. AERIAL PHOTOGRAPH.

APPROXIMATE SCALE: 1" = 200 FEET

1988 AERIAL PHOTOGRAPH



FIGURE 3



SOURCE: IDOT, 1992. AERIAL PHOTOGRAPH.

APPROXIMATE SCALE: 1" = 200 FEET



1958 AERIAL PHOTOGRAPH

FIGURE 4

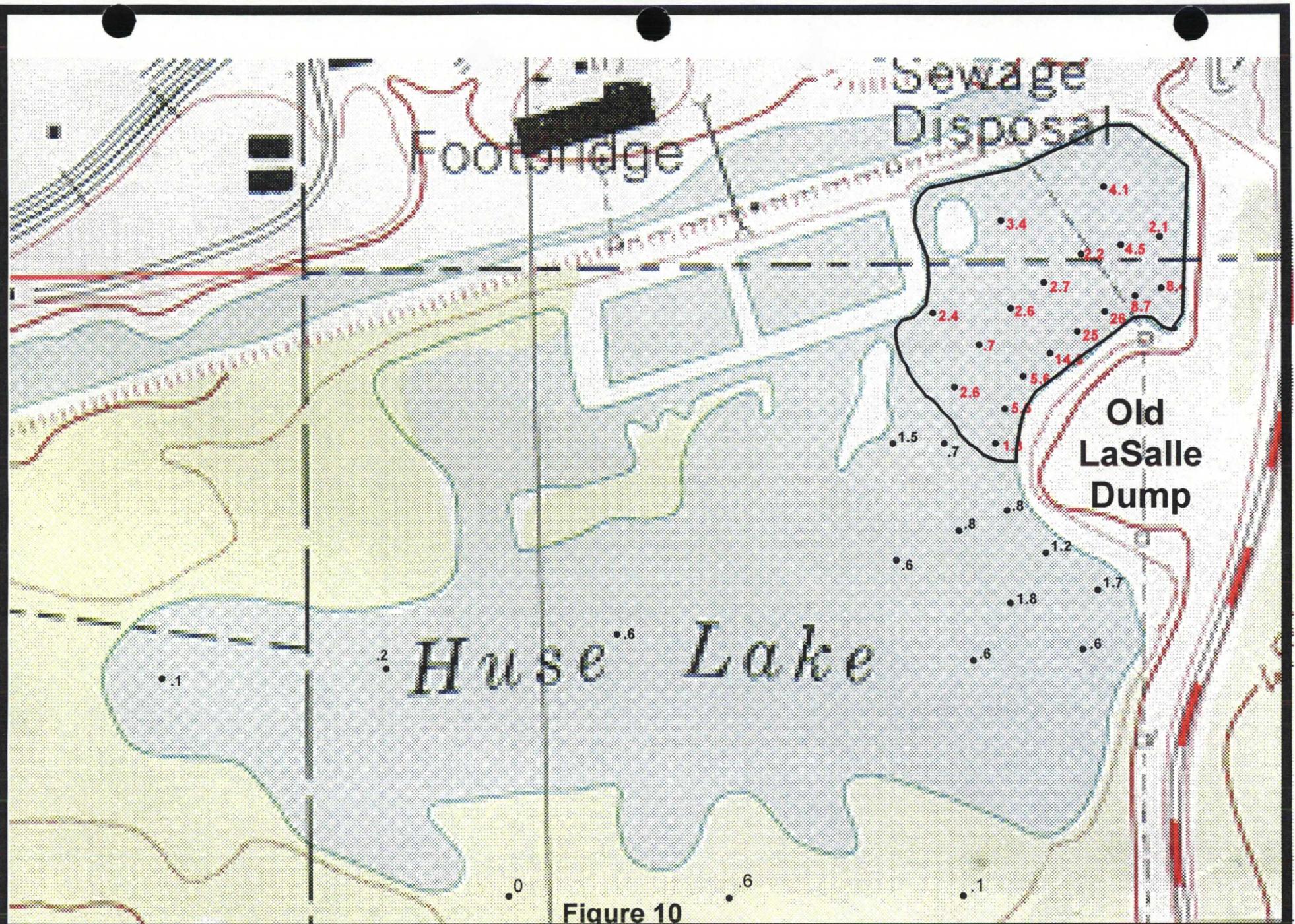


Figure 10

Shallow Sediment PCB Levels

Collected in top foot
of sediment.

Area outlined shows approximate
areas where average
PCB levels exceed 1ppm.

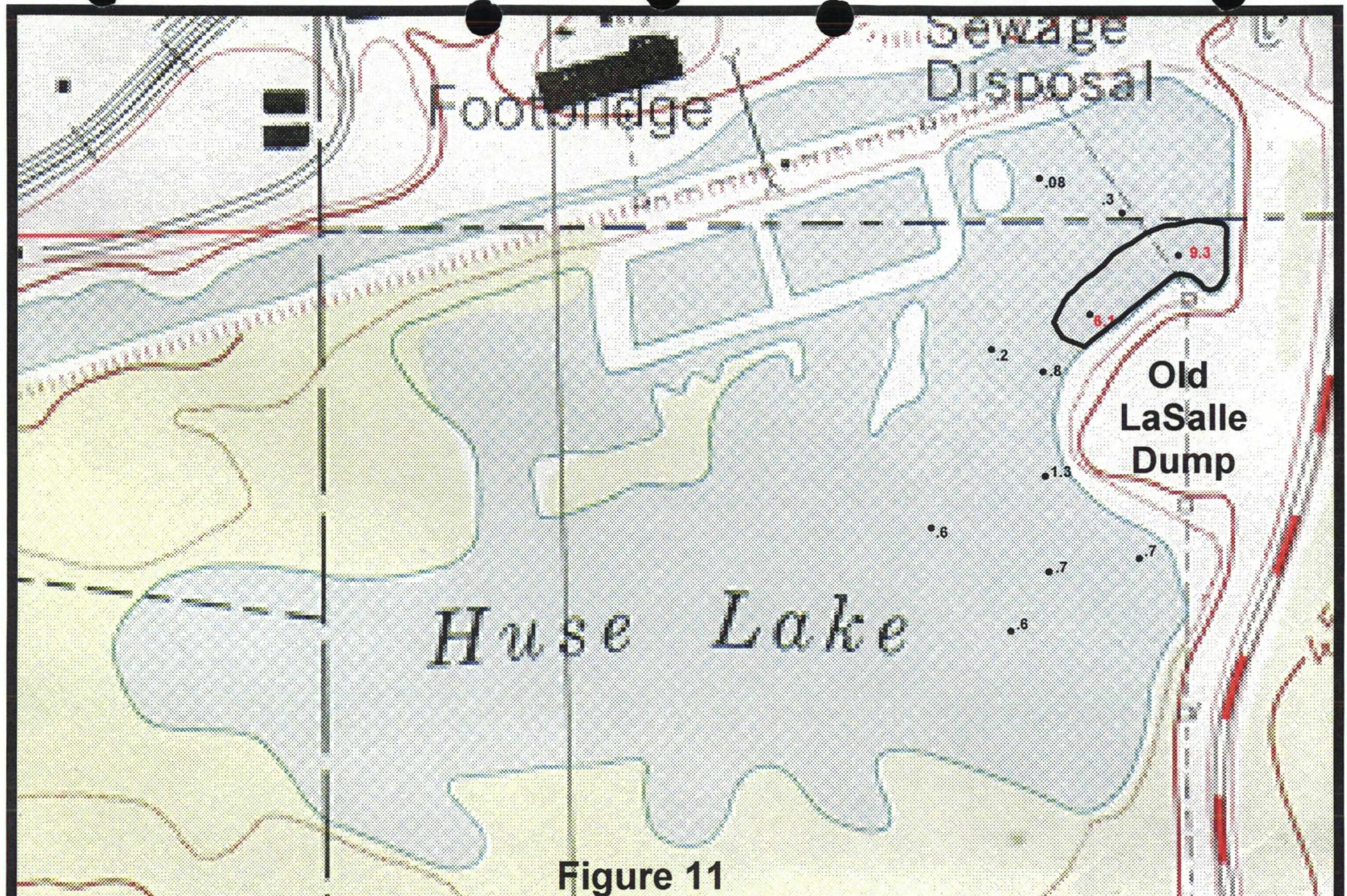
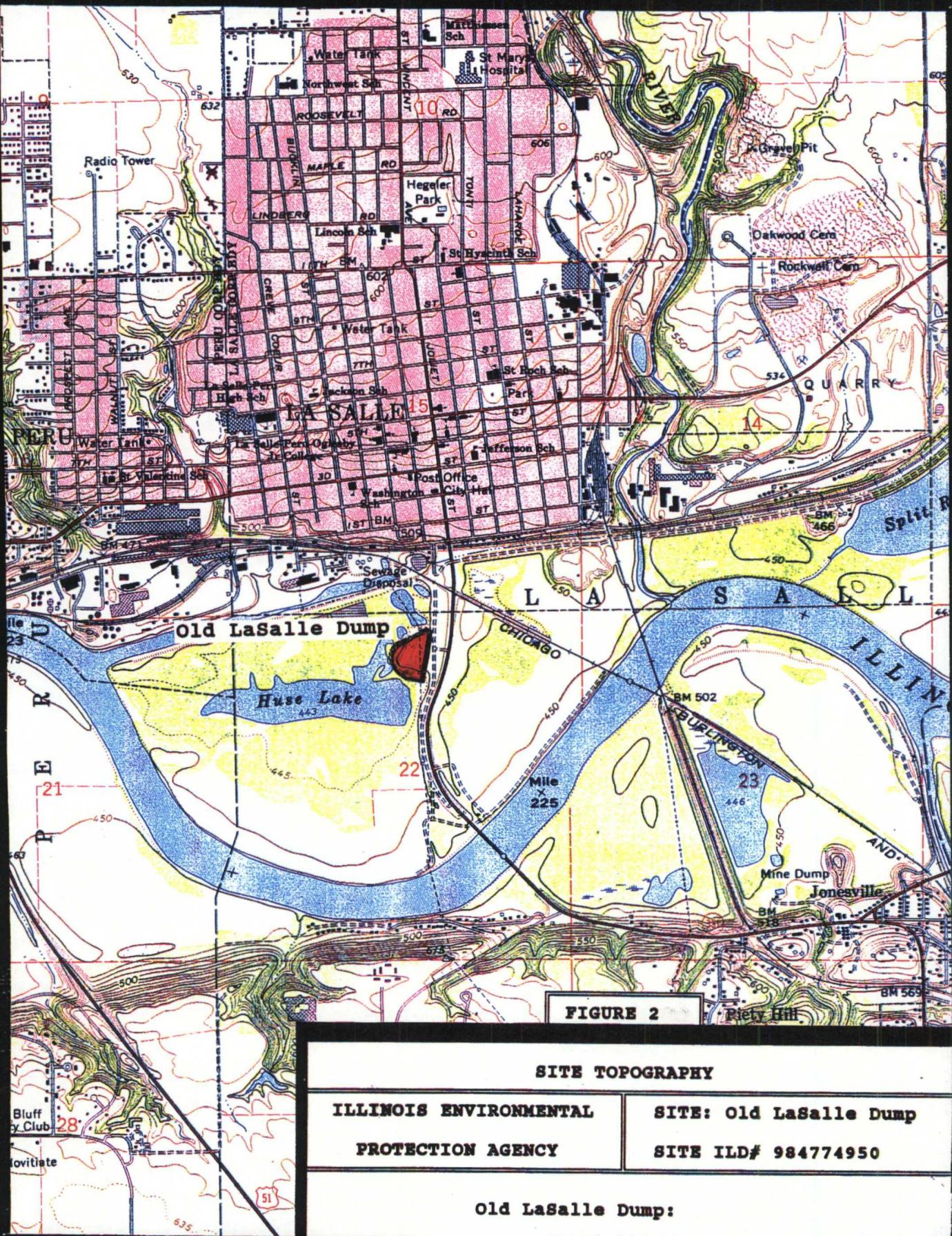


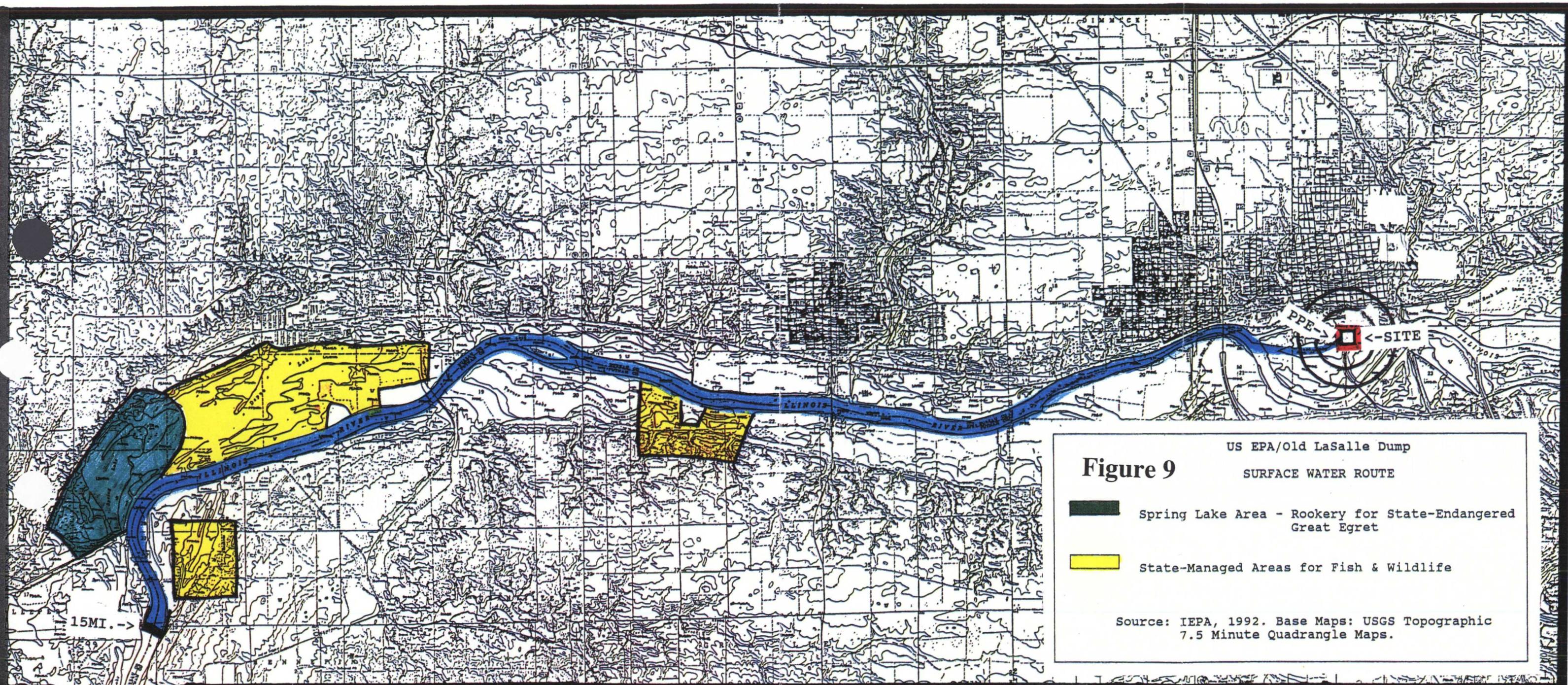
Figure 11

Area outlined shows approximate areas where average PCB levels exceed 1ppm

**SITE TOPOGRAPHY
OLD LASALLE DUMP**



SOURCE: USGS 7.5 Minute Topographic Series, LaSalle Quadrangle, 1979



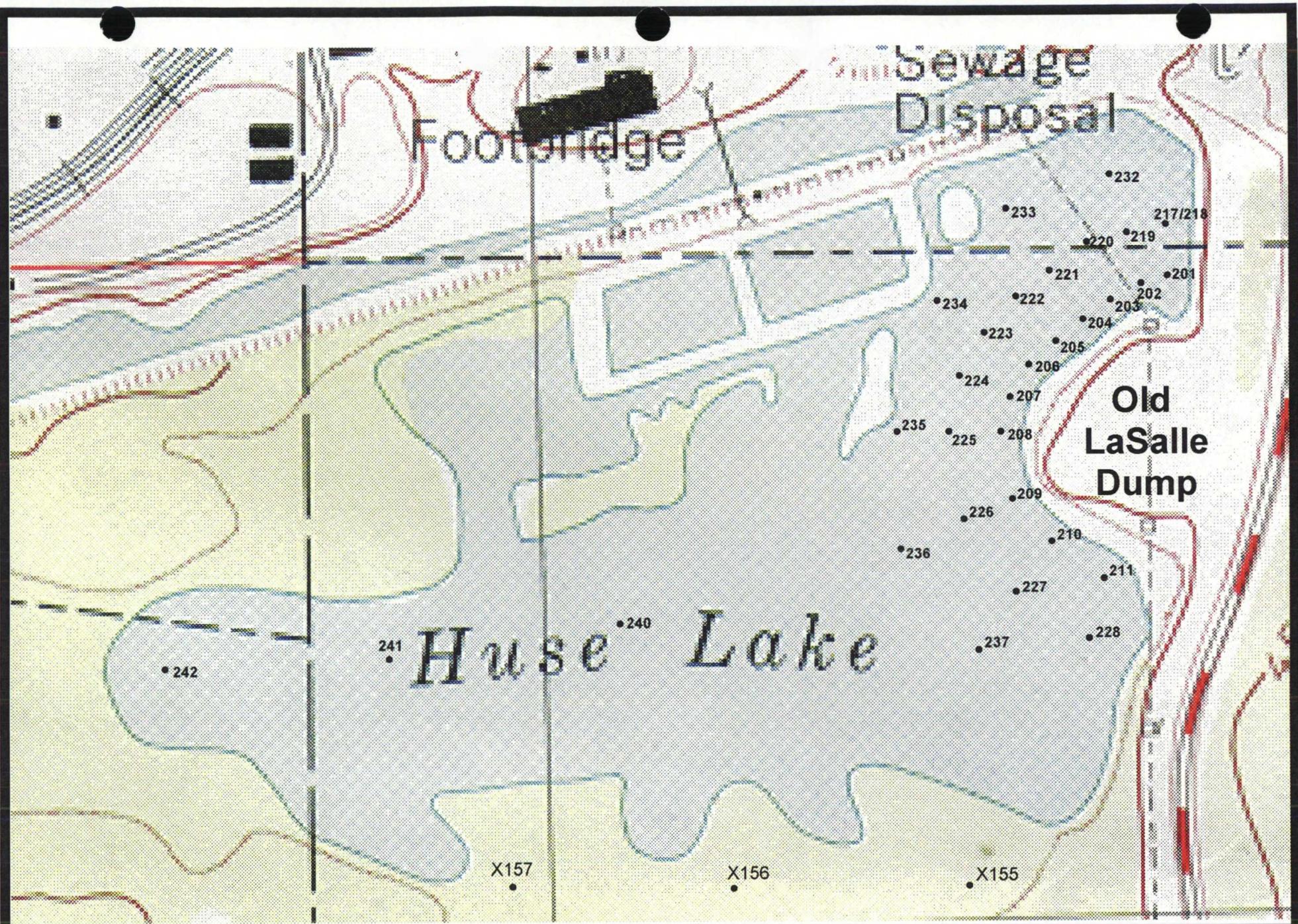


Figure 5
Shallow Sediment
Sample Locations

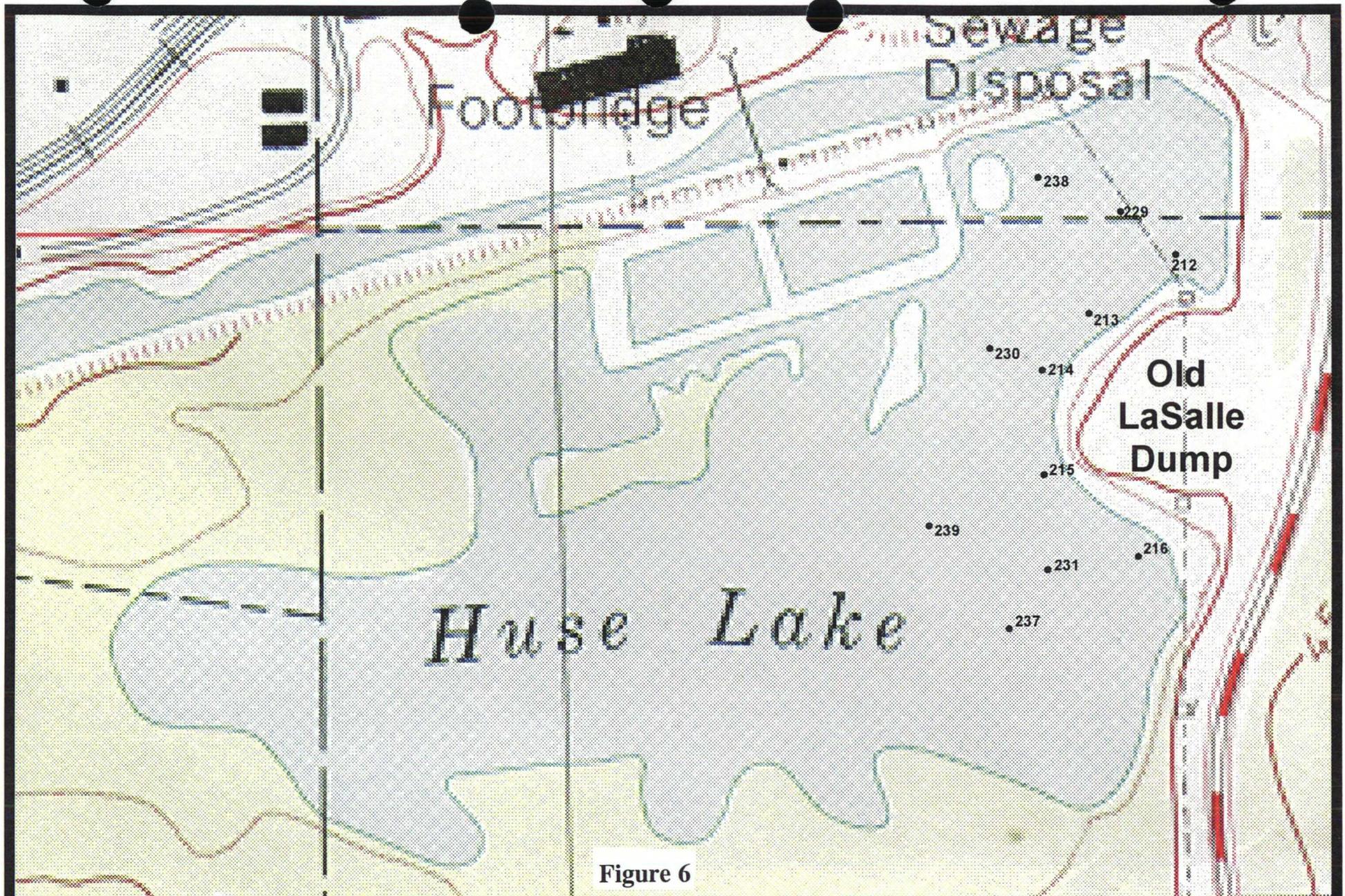
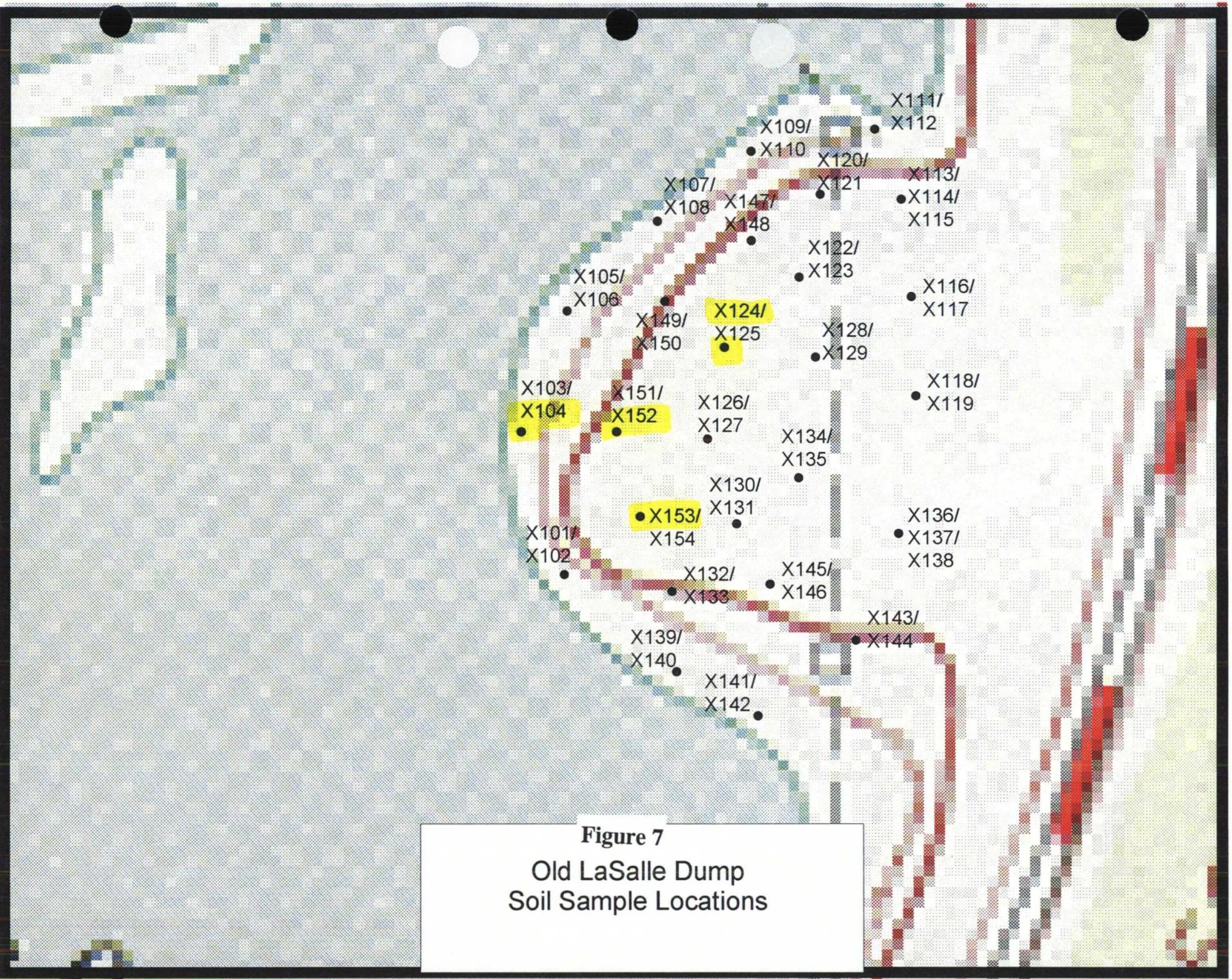


Figure 6

Deep Sediment
Sample Locations

N





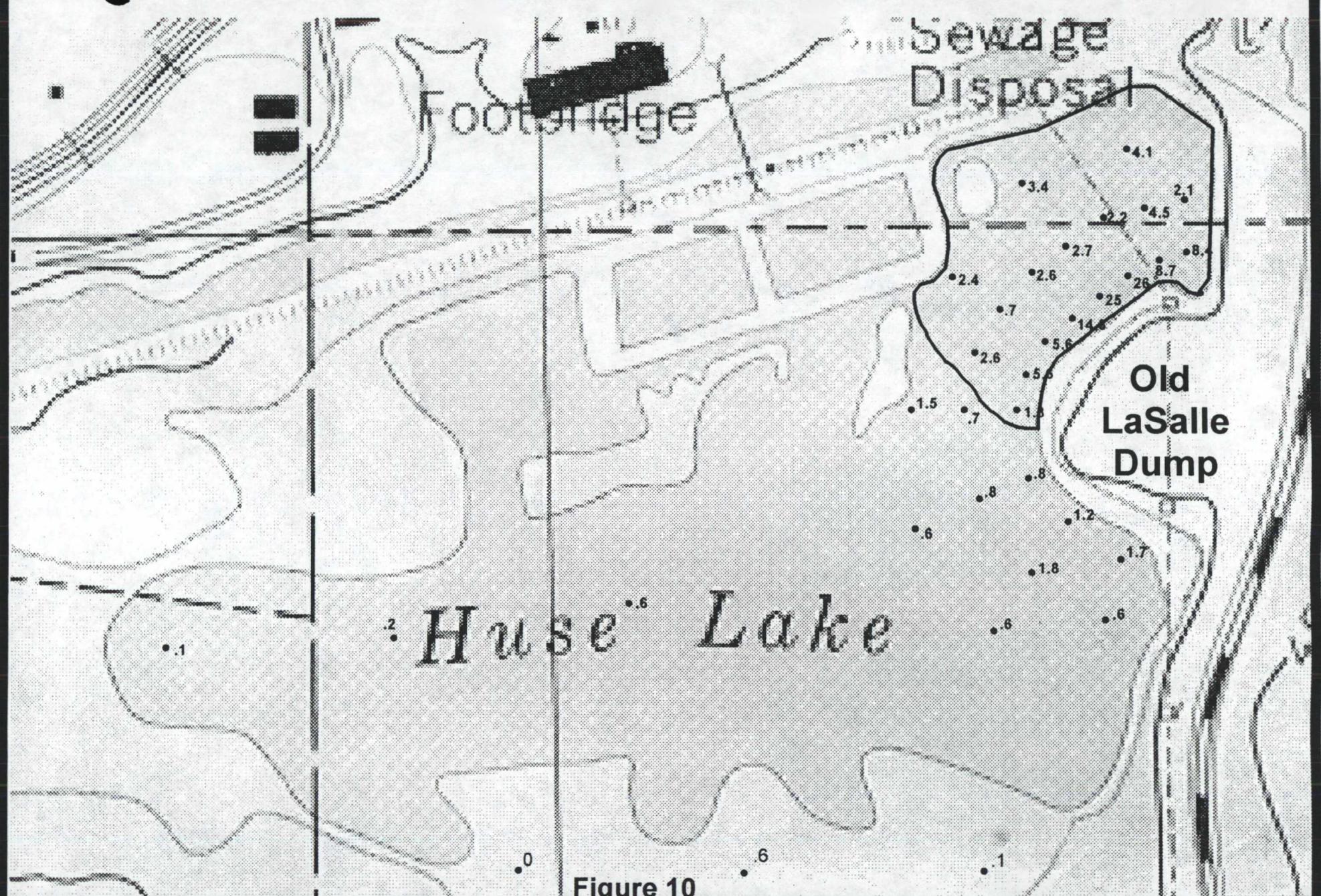


Figure 10

Shallow Sediment
PCB Levels

Collected in top foot
of sediment.

Area outlined shows approximate
areas where average
PCB levels exceed 1 ppm.

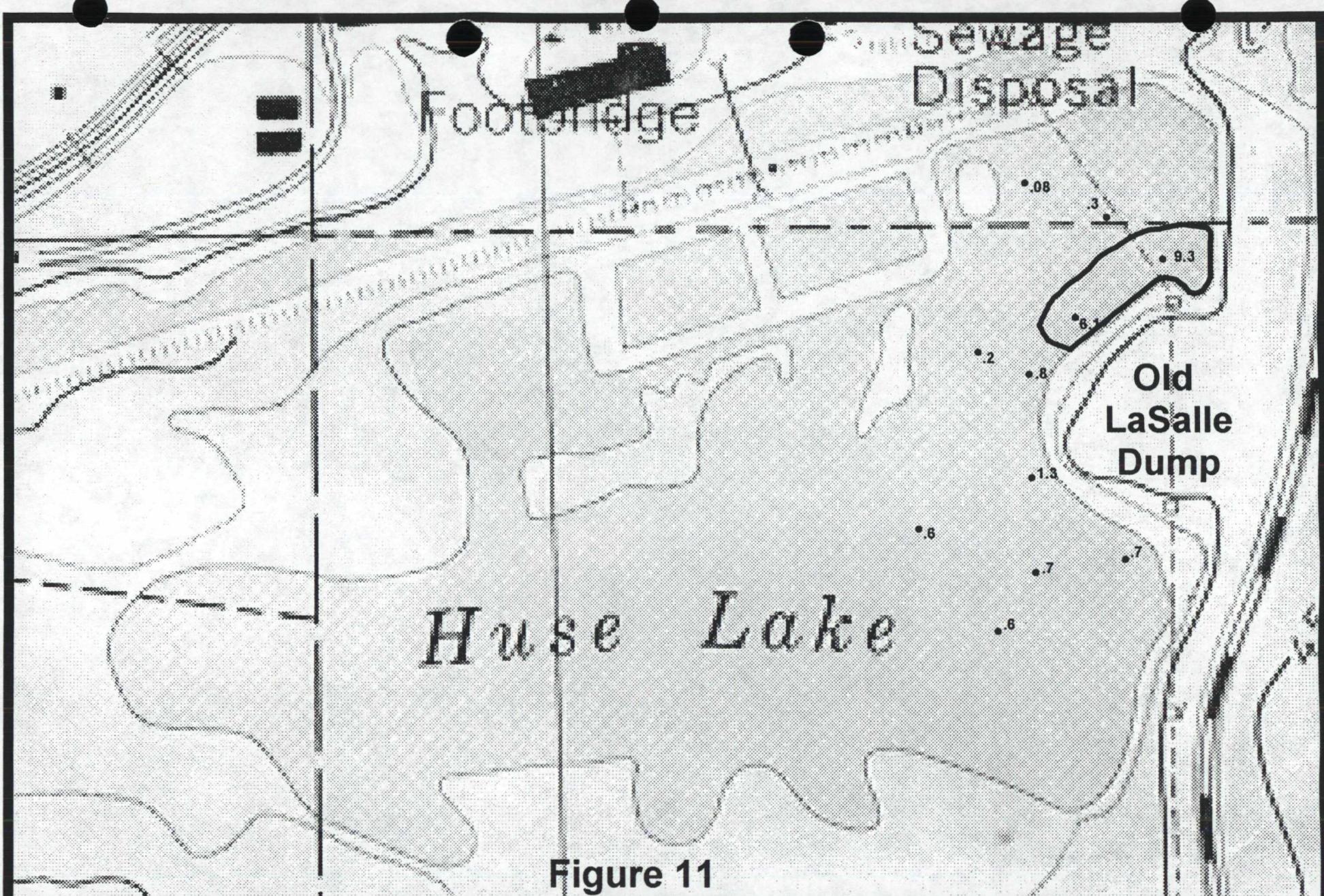


Figure 11

Sample Depths 2.5 to 3.5
feet in sediment

**Deep Sediment
PCB Levels**

Area outlined shows approximate areas
where average PCB levels exceed 1ppm

N



Appendix B

Tables

Table 1
Old LaSalle Dump Soil Sample Descriptions

Sample #	Sample Depth	Soil Description
X101	10'	Native soil. Black silty clay.
X102	5'	Brown cindery soil.
X103	9'	Native soil. Black silty clay.
X104	4'	Brown cindery soil.
X105	6'	Native soil. Black silty clay.
X106	3'	Brown cindery soil.
X107	6'	Native soil. Black silty clay.
X108	2'	Brown cindery soil.
X109	8'	Native soil. Black silty clay.
X110	6"	Dark brown silt.
X111	12'	Native soil. Black silty clay.
X112	4'	Brown silt.
X113	6'	Brown cindery soil.
X114	6'	Brown cindery soil.
X115	4'	Brown cindery soil.
X116	11'	Native soil. Black silty clay.
X117	4'	Black silty loam.
X118	12'	Native soil. Black silty clay.
X119	5'	Brown cindery soil.
X120	6'	Black silty soil. Petroleum smell.
X121	14'	Native soil. Black silty clay.
X122	10'	Native soil. Black silty clay.
X123	2'	Dark brown silt with capacitor remains.
X124	9'	Native soil. Black silty clay.
X125	4'	Brown cindery soil with oil in it.
X126	8'	Native soil. Black silty clay.
X127	4'	Brown cindery soil with capacitor remains.
X128	10'	Native soil. Black silty clay.
X129	3'	Brown cindery soil.
X130	8'	Native soil. Black silty clay.

Table 1 continued
Old LaSalle Dump Soil Sample Descriptions

Sample #	Sample Depth	Soil Description
X131	1'	Tight gray clay.
X132	15'	Native soil. Black silty clay.
X133	10'	Pink, blue and orange gooey material.
X134	9'	Native soil. Black silty clay.
X135	3'	Brown cindery soil.
X136	3.5'	Brown cindery soil with capacitor remains.
X137	3.5'	Brown cindery soil with capacitor remains.
X138	16'	Native soil. Black silty clay.
X139	12'	Native soil. Black silty clay.
X140	3'	Brown cindery soil with capacitor remains.
X141	13'	Native soil. Black silty clay.
X142	5'	Brown cindery soil.
X143	17'	Native soil. Black silty clay.
X144	5'	Brown cindery soil with capacitor remains.
X145	14'	Native soil. Black silty clay.
X146	4'	Brown cindery soil with capacitor remains.
X147	11'	Native soil. Black silty clay.
X148	5'	Brown cindery material with oil.
X149	10'	Native soil. Black silty clay.
X150	4.5'	Brown cindery soil.
X151	5.5'	Dark brown silty clay.
X152	3.5'	Brown to gray cinders.
X153	13'	Native soil. Black silty clay.
X154	5'	Brown cindery soil.
X155	surface	Black silt.
X156	surface	Black silt.
X157	surface	Black silt.

Table 2

Test Pit Descriptions

Test Pit #1

- 0-2' Gray/green clay.
2' - 10' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
10' Native soil. Black silty clay.

Groundwater encountered at 8'

Test Pit #2

- 0-3' Gray/green clay.
3-4' Brown cinders with remains of municipal garbage and capacitors.
4-9' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
9' Native soil. Black silty clay.

Groundwater not found at depth of 9'

Test Pit #3

- 0 - 6" Black silt.
6" - 6' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
6' Native soil. Black silty clay.

Groundwater encountered at 5'

Test Pit #4

- 0 - 6' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
6' Native soil. Black silty clay.

Groundwater encountered at 5'.

Test Pit #5

- 0 - 2' Brown cinders with remains of municipal garbage and capacitors.
2 - 8' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
8' Native soil. Black silty clay.

Groundwater encountered at 6'.

Table 2 continued

Test Pit Descriptions

Test Pit #6

0 - 12' Brown cinders with remains of municipal garbage and capacitors.
12' Native soil. Black silty clay.

Groundwater encountered at 7'.

Test Pit #7

0 - 4' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
4 - 6' Brown cinders with remains of municipal garbage and capacitors.
6 - 10' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
10' Native soil. Black silty clay.

No groundwater found at 10'.

Test Pit #8

0 - 1' Brown cinders with remains of municipal garbage and capacitors.
1' - 11' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
11' Native soil. Black silty clay.

No groundwater found at 11'.

Test Pit #9

0 - 12' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
12' Native soil. Black silty clay.

No groundwater found at 12'.

Test Pit #10

0 - 14' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.

Groundwater encountered at 9'.

Table 2 continued

Test Pit Descriptions

Test Pit #11

- 0 - 4' Black silt with lots of capacitors.
4' - 10' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
10' Native soil. Black silty clay.

Groundwater encountered at 9'.

Test Pit #12

- 0 - 9' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
9' Native soil. Black silty clay.

Groundwater encountered at 7'.

Test Pit #13

- 0 - 3' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
3 - 6' Brown cinders with remains of municipal garbage and capacitors.
6 - 8' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
8' Native soil. Black silty clay.

Groundwater encountered at 6'.

Test Pit #14

- 0 - 10' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick.
10' Native soil. Black silty clay.

No groundwater encountered at 10'.

Test Pit #15

- 0 - 1' Tight gray clay.
1 - 8' Mostly orange crushed brick with some municipal debris.
8' Native soil. Black silty clay.

Groundwater encountered at 7'.

Table 2 continued

Test Pit Descriptions

Test Pit #16

- 0 - 2' Black silt.
2 - 5' Brown cinders with remains of municipal garbage and capacitors.
5 - 10' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
10 - 11' Pink, blue and orange gooey material.
11 - 15' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
15' Native soil. Black silty clay.

Groundwater encountered at 9'.

Test Pit #17

- 0 - 4' Brown cinders with remains of municipal garbage and capacitors.
4 - 9' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
9' Native soil. Black silty clay.

No groundwater found at 9'.

Test Pit #18

- 0 - 4' Brown cinders with remains of municipal garbage and capacitors.
4 - 7' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
7 - 8' Gray clay.
8 - 16' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
16' Native soil. Black silty clay.

Groundwater encountered at 14'.

Test Pit #19

- 0 - 4' Brown cinders with remains of municipal garbage and capacitors.
4 - 12' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
12' Native soil. Black silty clay.

Groundwater encountered at 9'.

Test Pit #20

- 0 - 13' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
13' Native soil. Black silty clay.

Groundwater encountered at 9'.

Table 2 continued

Test Pit Descriptions

Test Pit #21

0 - 5' Brown cinders with remains of municipal garbage and capacitors.
6 - 17' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
17' Native soil. Black silty clay.

Groundwater encountered at 13'.

Test Pit #22

0 - 5' Brown cinders with remains of municipal garbage and capacitors.
5 - 14' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
14' Native soil. Black silty clay.

Groundwater encountered at 10'.

Test Pit #23

0 - 11' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
11' Native soil. Black silty clay.

Groundwater encountered at 8'.

Test Pit #24

0 - 10' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick

Groundwater encountered at 6'.

Test Pit #25

0 - 6' Brown cinders with remains of municipal garbage and capacitors.

No groundwater found at 6'.

Test Pit #26

0 - 5' Brown cinders with remains of municipal garbage and capacitors.
5 - 13' Brown cinders with remains of municipal garbage including mainly bottles, cans and brick
13' Native soil. Black silty clay.

Groundwater encountered at 9'.

Table 3
Old LaSalle Dump Soil Sampling Analytical Results

SCDM Benchmark		X101	X102	X103	X104	X105	X106	X107	X108	X109	X110	X111	X112
Volatiles													
Vinyl Chloride	310	17	U	14	U	17	U	12	U	20	U	14	U
Bromomethane	820000	17	U	790	17	U	13	U	20	U	97	23	U
Acetone	58000000	72	J	140	J	89	J	88	J	130	J	140	J
Carbon Disulfide	58000000	17	U	6	J	7	J	4	J	24	3	J	3
cis-1,2-Dichloroethene		17	U	14	U	17	U	12	U	20	U	14	J
2-Butanone		17	U	14	U	17	U	12	U	19	J	14	U
Benzene	20000	17	UJ	28	J	2	J	11	J	2	J	8	J
Trichloroethene		17	U	13	J	17	U	16	U	20	U	14	U
Methylcyclohexane		17	U	1	J	17	U	2	J	20	U	14	J
Toluene	120000000	17	UJ	14	U	17	U	12	U	20	U	14	U
Tetrachloroethene	11000	17	U	2	J	17	U	2	J	20	U	2	J
Xylenes (total)	120000000	17	UJ	3	J	17	UJ	2	J	20	UJ	14	UJ
Semi-Volatiles													
Benzaldehyde		53	J	67	J	39	J	86	J	31	J	45	J
Acetophenone		510	U	20	J	450	U	45	J	400	U	29	J
4-Methylphenol		510	U	500	U	450	U	840	U	400	U	450	U
Naphthalene		27	J	14	J	20	J	840	U	16	J	50	J
2-Methylnaphthalene		33	J	21	J	21	J	39	J	16	J	80	J
1,1'-Biphenyl		510	U	500	U	450	U	23	J	400	U	14	J
2-Chloronaphthalene	47000000	510	U	500	U	180	J	840	U	28	J	450	U
Acenaphthylene		120	J	500	U	31	J	840	U	28	J	32	J
Dibenzofuran		13	J	500	U	13	J	20	J	10	J	33	J
Fluorene	23000000	24	J	500	U	450	U	27	J	400	U	24	J
Hexachlorobenzene	360	510	U	500	U	450	U	840	U	400	U	20	J
Phenanthrene		140	J	67	J	74	J	270	J	53	J	320	J
Anthracene	170000000	87	J	500	U	51	J	110	J	46	J	71	J
Carbazole		510	U	500	U	450	U	840	U	400	U	450	U
Fluoranthene		360	J	87	J	190	J	690	J	170	J	540	J
Pyrene	17000000	520	69	J	440	J	690	J	250	J	490	260	J
Benzo(a)anthracene		370	J	33	J	150	J	400	J	100	J	260	J
Chrysene		520	53	J	230	J	540	J	160	J	310	J	220
bis(2-Ethylhexyl)phthalate	42000	510	U	500	U	450	U	3500	400	U	590	U	930
Benzo(b)fluoranthene		500	J	55	J	230	J	610	J	160	J	270	J
Benzo(k)fluoranthene		420	J	45	J	210	J	700	J	150	J	270	J
Benzo(a)pyrene	80	500	J	43	J	200	J	640	J	130	J	250	J
Indeno[1,2,3-cd]pyrene		220	J	27	J	110	J	450	J	68	J	140	J
Dibenzo(a,h)anthracene		93	J	500	U	45	J	200	J	26	J	56	J
Benzo(g,h,i)perylene		230	J	500	U	110	J	510	J	73	J	150	J
200	J	110	J	510	J	73	J	150	J	110	J	580	J
Pesticides/PCBs													
alpha-BHC		2.6	U	140	87	J	620	J	2.8	U	570	J	3.9
beta-BHC		5.3	50	32	J	760	J	2.8	U	23	J	3.9	U
Heptachlor	130	2.6	U	26	U	2.8	U	1000	J	2.8	U	23	J
Endosulfan I	3500000	2.6	U	26	U	2.8	U	430	J	2.8	U	23	J
Dieldrin	36	5.1	U	50	U	5.4	U	840	U	5.5	U	45	J
4,4'-DDE	1700	5.1	U	50	U	5.4	U	840	U	5.5	U	940	J
Endosulfan II	3500000	5.1	U	50	U	5.4	U	840	U	5.5	U	45	J
Endosulfan sulfate		5.1	U	50	U	5.4	U	840	U	5.5	U	7.5	U
Aroclor-1016	76	51	U	500	U	54	U	8400	U	55	U	450	J
Aroclor-1221		100	J	1000	U	110	J	17000	U	110	J	910	J
Aroclor-1232		76	51	U	500	U	54	U	8400	U	55	U	450
Aroclor-1242		76	51	U	500	U	54	U	8400	J	5400	450	J
Aroclor-1248		76	51	U	97000	6500	1600000	55	U	120000	J	75	U
Aroclor-1254		76	51	U	500	U	3700	8400	U	3300	450	U	12000
Aroclor-1260		76	51	U	500	U	590	14000	J	430	J	2100	J
Dioxins (Total Toxicity Equi)													
Inorganics													
ALUMINUM		18800	UJ	15900	16800	4830	16700	12200	18300	11100	19000	14200	15000
ANTIMONY	230	0.95	UJ	4.7	J	0.98	UJ	1.0	J	1.6	J	3.2	J
ARSENIC		17.0	21.3	11.4	J	6.5	J	16.7	J	15.6	J	19.8	J
BARIUM	41000	181	335	210	277	240	277	287	369	225	315	363	80.7
BERYLLIUM		0.91	0.95	0.85	0.45	0.98	0.80	0.96	0.53	0.93	0.73	0.83	0.42
CADMIUM	290	6.0	8.9	12.2	5.3	20.0	8.2	16.8	8.4	11.9	9.8	12.1	1.1
CALCIUM	13500	50900	26000	157000	20800	27200	15000	33700	11400	24400	24400	15700	48200
CHROMIUM	2900	41.5	J	34.0	J	64.6	J	29.5	J	66.8	J	50.2	J
COBALT		9.8	9.9	10.1	4.7	12.8	11.1	10.5	7.5	11.7	8.8	11.4	8.4
COPPER		45.9	J	315	J	66.7	J	44.4	J	94.3	J	359	J
IRON	33900	32100	28400	16100	38400	41700	41200	25300	27100	71600	30000	21100	
LEAD		53.6	837	151	597	188	411	221	713	145	766	182	19.4
MAGNESIUM		8290	7760	8840	13200	7910	7500	6420	9620	6810	8880	7060	17800
MANGANESE		2900	508	773	761	1370	561	1160	1870	836	351	1270	512
MERCURY	170	0.30	J	0.17	J	0.78	J	0.26	J	0.63	J	1.1	J
NICKEL	12000	30.3	J	103	J	42.8	J	42.3	J	58.9	J	83.4	J
POTASSIUM		2440	2150	2780	982	2510	1580	3080	1640	2830	1710	2560	1030
SELENIUM	2900	1.4	UJ	1.3	UJ	1.6	J	1.1	UJ	3.3	J	1.5	J
SILVER	2900	0.97	1.8	1.6	0.25	1.8	1.6	1.9	1.5	1.9	2.8	1.2	0.25
SODIUM		462	1000	529	449	619	474	724	667	509	472	551	360
VANADIUM	4100	37.1	28.5	33.5	15.4	37.9	30.1	40.8	29.1	37.3	28.5	35.2	16.2
ZINC	170000	622	1560	932	486	1520	1420	1430	1530	1170	1570	1280	99.6
CYANIDE	12000	0.15	R	0.39	J	0.15	R	0.58	J	0.18	R	0.16	J
											R	0.14	J
											R	0.12	R

The volatiles, semi-volatiles and pesticides/pcbs are shown in parts per billion.

The inorganics are shown in parts per million.

Table 3 cont.
Old LaSalle Dump Soil Sampling Analytical Results

SCDM Benchmark		X113	X114	X115	X116	X117	X118	X119	X120	X121	X122	X123	X124	
Volatiles														
Vinyl Chloride	310	7	J	5	J	10	U	13	U	15	U	12	U	12
Bromomethane	820000	1200	J	550	J	4	J	13	U	15	U	12	U	12
Acetone	58000000	580	J	1000	J	59	U	56	U	84	U	110	U	48
Carbon Disulfide	58000000	2	J	2	J	10	U	2	J	2	J	12	U	2
cis-1,2-Dichloroethene		48		20		2	J	6	J	45	3	J	12	J
2-Butanone		13	U	240	10	U	13	U	15	U	12	U	12	U
Benzene	20000	5	J	7	J	3	J	4	J	13	J	12	UJ	12
Trichloroethene		16		28		8	J	13	U	13	J	2	J	12
Methylcyclohexane		13	U	14	U	2	J	13	U	2	J	12	U	12
Toluene	120000000	13	U	14	U	10	U	13	U	15	U	12	U	12
Tetrachloroethene	11000	13	U	14	U	10	U	13	U	15	U	12	U	12
Xylenes (total)	120000000	13	UJ	2	J	10	UJ	13	UJ	15	UJ	12	UJ	12
Semi-Volatiles														
Benzaldehyde		450	UJ	460	UJ	400	UJ	430	UJ	420	UJ	420	UJ	400
Acetophenone		450	U	460	U	400	U	430	U	420	U	420	U	400
4-Methylphenol		31	J	28	J	400	U	430	U	420	U	420	U	400
Naphthalene		500		350	J	400	U	110	J	130	J	420	U	210
2-Methylnaphthalene		370	J	330	J	400	U	280	J	380	J	420	U	510
1,1'-Biphenyl		88	J	56	J	400	U	430	U	20	J	420	U	27
2-Chloronaphthalene	47000000	8200		3000	400	U	430	U	420	U	400	U	310	J
Acenaphthylene		55	J	67	J	400	U	15	J	420	U	420	U	61
Dibenzofuran		350	J	260	J	400	U	49	J	85	J	420	U	120
Fluorene	23000000	650		370	J	13	J	430	U	420	U	65	J	210
Hexachlorobenzene		360	450	U	460	U	400	U	430	U	420	U	400	U
Phenanthrene		2900		2200	130	J	210	J	360	J	420	U	1000	260
Anthracene	170000000	690		490	35	J	18	J	36	J	420	U	180	J
Carbazole		400	J	260	J	18	J	430	U	420	U	52	J	1300
Fluoranthene		4100		3200	210	J	170	J	250	J	420	U	1100	480
Pyrene	17000000	5800		4400	160	J	150	J	290	J	420	U	950	710
Benzo(a)anthracene		3100		2100	81	J	89	J	140	J	420	U	510	250
Chrysene		3600		2400	89	J	130	J	180	J	420	U	560	380
bis(2-Ethylhexyl)phthalate	42000	450	U	460	U	400	U	430	U	420	U	400	U	6800
Benzo(b)fluoranthene		3200		1700	69	J	93	J	120	J	420	U	510	320
Benzo(k)fluoranthene		2500		2100	80	J	100	J	140	J	420	U	350	J
Benzo(a)pyrene	80	3000		2000	71	J	100	J	140	J	420	U	470	240
Indeno(1,2,3-cd)pyrene		2000		1400	40	J	53	J	100	J	420	UJ	190	J
Dibenzo(a,h)anthracene		770		520	20	J	21	J	37	J	420	U	110	J
Benzo(g,h,i)perylene		1800		1500	400	U	57	J	120	J	420	U	180	J
Pesticides/PCBs														
alpha-BHC		690	J	220	J	2.1	U	4.2	3.6	2.7	16	680	J	29
beta-BHC		170	J	12	U	2.1	U	9.0	19	2.2	U	35	23	U
Heptachlor	130	47	U	71	J	2.1	U	2.2	U	2.2	U	2.1	U	22
Endosulfan I	3500000	47	U	12	U	2.1	U	2.2	U	2.2	U	2.1	U	23
Dieldrin	36	90	U	23	U	4.0	U	4.3	U	4.2	U	4.0	U	74
4,4'-DDE	1700	90	U	23	U	4.0	U	4.3	U	4.2	U	4.0	U	75
Endosulfan II	3500000	90	U	23	U	4.0	U	4.3	U	4.2	U	4.0	U	33
Endosulfan sulfate		90	U	23	U	4.0	U	15	6.7	4.2	U	9.2	45	U
Aroclor-1016	76	900	U	230	U	40	U	43	U	42	U	40	U	450
Aroclor-1221		76	1800	U	470	U	82	U	88	U	86	U	82	U
Aroclor-1232		76	900	U	230	U	40	U	43	U	42	U	40	U
Aroclor-1242		76	900	U	230	U	150	43	U	42	U	40	U	450
Aroclor-1248		76	900	U	230	U	40	U	43	U	1600	130	40	U
Aroclor-1254		76	220000	J	44000	J	150	890						27000
Aroclor-1260		76	900	U	5900	J	40	U	43	U	42	U	40	U
Dioxins (Total Toxicity Equ)														320
Inorganics														
ALUMINUM		53100		45200	9590		11000		9220		8210		6210	
ANTIMONY	230	17.1	J	2.9	J	1.4	J	0.86	J	3.2	J	0.79	UJ	
ARSENIC		11.9	J	12.5	J	3.4	J	10.7		21.8		6.6	J	
BARIUM	41000	233		200		243		104		205		81.2		
BERYLLIUM		0.51		0.45		0.83		0.97		4.3		0.51		
CADMIUM	290	9.1		6.7		1.0		6.3		12.6		0.79		
CALCIUM		35800		79300		24700		38200		68600		7130		
CHROMIUM	2900	21.8	J	27.6	J	20.8	J	17.6	J	12.9	J	13.5	J	
COBALT		6.5		6.4		6.3		8.3		6.9		8.8		
COPPER		1550	J	1770	J	33.0	J	27.8	J	131	J	14.3	J	
IRON		14300		43200		16600		20400		29200		21600		
LEAD		4370	J	470		29.5		81.3		673		12.8		
MAGNESIUM		6350		31500		3280		13400		20300		4820		
MANGANESE	2900	463		1230		439		719		774		824		
MERCURY	170	0.21	J	0.21	J	0.060	UJ	0.080	J	0.33	J	0.060	UJ	
NICKEL	12000	24.3	J	20.8	J	23.7	J	22.1	J	23.3	J	21.5	J	
POTASSIUM		1060		1250		1970		1940		1700		1400		
SELENIUM	2900	1.2	UJ	1.3	UJ	1.2	J	1.2	UJ	1.3	J	1.2	UJ	
SILVER	2900	2.7		2.3		0.34		0.29		0.61		0.32		
SODIUM		590		559		433		427		997		373		
VANADIUM	4100	24.2		23.2		22.6		24.9		39.7		19.6		
ZINC	170000	1400		1120		171		1020		1350		63.7		
CYANIDE	12000	0.12	R	0.13	R	0.12	R	0.13	R	1.0	J	0.12	R	

The volatiles, semi-volatiles and pesticides/pcbs are shown in parts per billion.

The inorganics are shown in parts per million.

Table 3 cont.
Old LaSalle Dump Soil Sampling Analytical Results

SCDM Benchmark		X125	X126	X127	X128	X129	X130	X131	X132	X133	X134	X135	X136
Volatiles													
Vinyl Chloride	310	16	U 2	J 11	U 3	J 12	U 6	J 11	U 37	22	U 25	12	U 12
Bromomethane	820000	16	U 15	U 15	12	U 12	U 16	J 11	U 25	U 22	U 16	U 12	U 12
Acetone	58000000	240	J 120	J 38	J 110	J 82	J 57	J 32	J 110	J 29	J 82	J 140	J 61
Carbon Disulfide	58000000	16	U 13	J 11	6	J 7	J 5	J 42	49	3	J 3	J 3	J 2
cis-1,2-Dichloroethene		16	U 15	3	J 4	J 12	U 9	J 11	U 19	J 5	J 130	10	J 5
2-Butanone	63	37	11	U 24	30	16	U 11	U 25	U 22	U 22	U 16	U 12	U 10
Benzene	20000	10	J 18	J 17	J 3	J 110	J 16	UJ 4	J 5	J 22	UJ 3	J 6	J 2
Trichloroethene		6	J 15	U 7	J 12	U 44	3	J 3	J 25	U 11	J 160	190	21
Methylcyclohexane		16	U 2	J 11	U 2	J 5	J 16	U 2	J 25	U 22	U 2	J 12	U 12
Toluene	120000000	16	U 15	U 11	U 12	U 45	J 16	UJ 11	U 25	U 22	UJ 16	U 6	J 12
Tetrachloroethene	11000	28	15	U 73	2	J 150	16	U 11	U 25	U 22	U 16	U 12	U 12
Xylenes (total)	120000000	16	UJ 15	UJ 11	UJ 12	UJ 12	J 16	UJ 11	UJ 25	UJ 22	UJ 16	J 12	UJ 12
Semi-Volatiles													
Benzaldehyde		2300	U 460	U 850	U 410	U 440	U 490	U 400	U 120	J 600	U 58	J 92	J 420
Acetophenone		2300	U 460	U 42	J 410	U 14	J 490	U 13	J 630	U 600	U 47	J 44	J 19
4-Methylphenol		2300	U 30	J 850	U 410	U 440	U 490	U 400	U 24	J 600	U 64	J 420	U 420
Naphthalene		2300	U 460	U 850	U 410	U 440	U 490	U 400	U 630	U 600	U 460	U 180	J 180
2-Methylnaphthalene		2300	U 460	U 28	J 16	J 440	U 14	J 400	U 20	J 600	U 22	J 480	110
1,1'-Biphenyl		2300	U 460	U 24	J 410	U 440	U 490	U 400	U 24	J 600	U 460	J 24	J 23
2-Chloronaphthalene	47000000	2300	U 460	U 850	U 20	J 440	U 490	U 1200	630	U 600	U 460	U 420	U 420
Acenaphthylene		2300	U 13	J 850	U 17	J 440	U 21	J 100	J 23	J 600	U 35	J 87	J 51
Dibenzofuran		2300	U 460	U 54	J 410	U 440	U 490	U 400	U 18	J 600	U 12	J 120	J 82
Fluorene	23000000	2300	U 460	U 160	J 410	U 440	U 490	U 400	U 40	J 600	U 460	U 72	J 120
Hexachlorobenzene	360	2300	U 460	U 850	U 410	U 65	J 490	U 400	U 630	U 190	J 460	U 420	U 20
Phenanthrene		200	J 45	J 2800	58	J 30	J 58	J 400	U 97	J 600	U 79	J 1000	1100
Anthracene	170000000	2300	U 21	J 780	J 17	J 440	U 26	J 14	J 55	J 600	U 51	J 190	J 220
Carbazole		2300	U 460	U 250	J 410	U 440	U 490	U 400	U 630	U 600	U 460	U 85	J 120
Fluoranthene		430	J 64	J 5600	92	J 36	J 100	J 400	U 230	J 600	U 130	J 1100	1200
Pyrene	17000000	380	J 91	J 6300	130	J 40	J 120	J 400	U 530	J 600	U 140	J 1200	1000
Benzo(a)anthracene		230	J 51	J 3500	72	J 20	J 70	J 400	U 170	J 600	U 99	J 490	530
Chrysene		300	J 77	J 3700	94	J 35	J 120	J 400	U 240	J 600	U 150	J 660	620
bis(2-Ethylhexyl)phthalate	42000	2300	U 460	U 850	U 680	U 440	U 3000	U 400	U 1200	U 600	U 460	U 420	U 420
Benzo(b)fluoranthene		300	J 69	J 3400	85	J 28	J 100	J 400	U 210	J 600	U 140	J 600	460
Benzo(k)fluoranthene		230	J 60	J 2500	77	J 440	U 96	J 400	U 190	J 600	U 140	J 570	560
Benzo(a)pyrene	80	250	J 62	J 3000	93	J 10	J 80	J 400	U 180	J 600	U 130	J 590	470
Indeno(1,2,3-cd)pyrene		170	J 63	J 1800	J 74	J 16	J 74	J 400	U 140	J 600	U 110	J 300	J 280
Dibenzo(a,h)anthracene		2300	U 21	J 620	J 24	J 440	UJ 22	J 400	UJ 49	J 600	U 47	J 110	J 110
Benzo(g,h,i)perylene		2300	U 63	J 1600	J 80	J 440	UJ 87	J 400	UJ 160	J 600	U 110	J 330	J 220
Pesticides/PCBs													
alpha-BHC		170	J 17	160	89	J 5.8	3.8	U 23	J 130	130	62	9.2	100
beta-BHC		4.7	U 2.4	U 11	U 2.1	U 4.6	3.1	2.1	U 3.3	U 2.4	U 20	780	
Heptachlor	130	4.7	U 17	11	U 120	J 7.4	2.5	U 2.1	U 80	80	78	8.9	22
Endosulfan I	3500000	4.7	U 2.4	U 11	U 0.89	J 2.3	U 2.5	U 2.1	U 3.3	U 2.4	U 1.4	J 22	U
Dieldrin	36	9.0	U 4.6	U 21	U 11	J 4.4	U 4.9	U 4.0	U 6.4	U 4.7	U 4.2	U 200	J
4,4'-DDE	1700	9.0	U 4.6	U 21	U 34	J 6.4	4.9	U 4.0	U 6.4	U 4.7	U 8.0	87	J
Endosulfan II	3500000	9.0	U 4.6	U 21	U 4.1	U 4.4	U 4.9	U 4.0	U 6.4	U 6.4	U 4.7	U 4.2	U 42
Endosulfan sulfate		9.0	U 4.6	U 21	U 3.4	J 4.4	4.9	U 4.0	U 6.4	U 6.4	U 4.7	U 4.2	U 64
Aroclor-1016	76	90	U 46	U 210	U 41	U 44	U 49	U 40	U 63	U 63	U 46	U 42	U 420
Aroclor-1221	76	180	U 93	U 430	U 84	U 89	U 99	U 82	U 130	U 130	U 94	U 86	U 850
Aroclor-1232	76	90	U 46	U 210	U 41	U 44	U 49	U 40	U 63	U 63	U 46	U 42	U 420
Aroclor-1242	76	90	U 750	210	U 41	U 44	U 220	2300	63	U 63	U 46	U 42	U 420
Aroclor-1248	76	90	U 46	U 29000	41	U 44	U 49	U 40	U 63	U 63	U 46	U 42	U 420
Aroclor-1254	76	18000	J 840	25000	41	U 44	U 49	U 280	J 3400	3400	3300	42	U 7000
Aroclor-1260	76	3000	J 46	U 3800	41	U 44	U 48	J 52	J 63	U 63	U 430	42	U 420
Dioxins (Total Toxicity Eq.)													
Inorganics													
ALUMINUM		30300	14900	15800	10500	10000	13400	19000	12900	22600	13700	9910	7840
ANTIMONY	230	6.4	J 0.92	UJ 3.7	J 0.81	UJ 5.0	J 0.91	UJ 1.1	J 1.1	UJ 1.2	UJ 0.86	UJ 1.8	J 2.4
ARSENIC		26.5	J 7.9	J 22.0	J 9.1	J 16.5	J 11.1	J 3.5	J 17.2	J 2.3	U 10.1	J 15.7	J 16.1
BARIUM	41000	494	185	591	151	652	184	94.1	138	49.6	112	292	286
BERYLLIUM		0.25	0.82	0.96	0.62	0.74	0.74	0.99	0.74	0.42	0.78	3.3	0.73
CADMIUM	290	5.6	7.4	29.7	7.1	94.4	17.3	0.89	10.1	0.22	U 11.1	11.2	4.1
CALCIUM	28000	15500	55700	20700	81900	15000	27400	38400	10100	17200	28900	91800	
CHROMIUM	2900	674	50.9	75.4	25.6	23.9	62.3	29.0	51.6	49.1	36.0	19.2	19.0
COBALT		16.1	9.0	11.7	8.4	6.2	10.2	12.1	11.2	3.1	13.9	8.8	7.2
COPPER		2690	J 51.8	J 630	J 48.7	J 329	J 64.7	J 43.3	J 82.2	J 539	J 60.6	J 100	J 66.9
IRON	149000	24800	62900	22600	19600	27700	25100	91300	9580	22200	36100	27200	
LEAD		383	143	1580	160	15600	159	22.8	531	122	869	538	486
MAGNESIUM		8490	8430	9660	8590	22600	7410	8990	8110	18800	8150	5020	11400
MANGANESE	2900	1580	333	1300	483	1260	516	768	1150	84.7	496	666	1930
MERCURY	170	0.21	0.80	0.45	0.080	0.070	0.69	0.060	U 0.45	0.090	U 0.61	0.35	0.32
NICKEL	12000	558	33.3	78.1	25.1	98.6	32.5	42.1	43.0	11.0	30.0	34.5	66.8
POTASSIUM		777	J 2090	J 2460	J 2050	J 2170	J 2100	J 3870	J 2290	J 1680	J 2410	J 2090	J 1410
SELENIUM	2900	2.0	2.1	1.5	1.3	1.3	U 2.2	2.6	2.3	1.8	U 1.9	1.8	1.2
SILVER	2900	4.5	1.6	5.2	0.94	4.0	1.9	0.52	2.8	0.71	2.5	1.3	1.1
SODIUM		405	449	869	410	783	481	447	541	1150	389	663	366
VANADIUM	4100	33.9	32.1	28.8	23.3	21.3	30.5	23.3	28.5	40.4	29.5	34.2	22.1
ZINC	170000	1690	791	3200	J 1220	7180	J 894	153	891	39.0	7580	J 1980	755
CYANIDE	12000	0.14	R 0.14	R 0.15	J 0.12	R 0.72	J 0.14	R 0.12	R 0.96	J 0.18	R 0.13	R 0.30	J 0.12

The volatiles, semi-volatiles and pesticides/pcbs are shown in parts per billion.

The inorganics are shown in parts per million.

Table 3 cont.
Old LaSalle Dump Soil Sampling Analytical Results

SCDM Benchmark		X137	X138	X139	X140	X141	X142	X143	X144	X145	X146	X147
Volatiles												
Vinyl Chloride	310	12	U	19	U	16	U	14	U	23	U	14
Bromomethane	820000	12	U	19	U	16	U	14	U	23	U	14
Acetone	58000000	35	J	250	J	75	J	34	J	130	J	94
Carbon Disulfide	58000000	2	J	140	4	J	2	J	67	14	U	14
cis-1,2-Dichloroethene		12	U	5	J	5	J	14	U	23	U	14
2-Butanone		12	U	58	15	J	14	U	23	U	14	U
Benzene	20000	4	J	19	UJ	16	UJ	6	J	23	UJ	2
Trichloroethene		25	J	19	2	J	14	U	23	U	14	U
Methylcyclohexane		12	U	19	U	16	U	14	U	23	U	14
Toluene	120000000	12	U	19	U	16	U	14	U	3	J	2
Tetrachloroethene	11000	12	U	19	U	16	U	14	U	23	U	14
Xylenes (total)	120000000	12	UJ	19	UJ	16	UJ	14	UJ	23	UJ	14
Semi-Volatiles												
Benzaldehyde	410	U	500	U	510	U	460	U	57	J	27	J
Acetophenone	14	J	18	J	510	U	26	J	540	U	420	U
4-Methylphenol	410	U	41	J	510	U	460	U	540	U	420	U
Naphthalene	21	J	500	U	510	U	460	U	540	U	15	J
2-Methylnaphthalene	36	J	36	J	17	J	37	J	540	U	15	J
1,1'-Biphenyl	410	U	500	U	510	U	16	J	540	U	420	U
2-Chloronaphthalene	47000000	410	U	500	U	510	U	23	J	540	U	420
Acenaphthylene	26	J	38	J	55	J	30	J	39	J	23	J
Dibenzofuran	22	J	17	J	510	U	29	J	540	U	21	J
Fluorene	23000000	30	J	22	J	20	J	29	J	540	U	29
Hexachlorobenzene	360	18	J	500	U	510	U	460	U	540	U	420
Phenanthere	280	J	120	J	74	J	500	48	J	530	150	J
Anthracene	170000000	61	J	42	J	55	J	100	J	37	J	150
Carbazole	32	J	23	J	510	U	88	J	540	U	38	J
Fluoranthene	440	180	J	170	J	990	160	J	1400	110	J	440
Pyrene	17000000	410	190	J	200	J	1400	190	J	930	130	J
Benzo(a)anthracene	230	J	120	J	150	J	700	99	J	900	60	J
Chrysene	280	J	200	J	240	J	780	130	J	1100	73	J
bis(2-Ethylhexyl)phthalate	42000	410	U	500	U	760	U	460	U	540	U	5300
Benzo(b)fluoranthene	260	J	180	J	210	J	1100	J	88	J	1300	35
Benzo(k)fluoranthene	220	J	150	J	170	J	900	J	80	J	1100	50
Benzo(a)pyrene	80	230	J	150	J	190	J	910	J	110	J	1100
Indeno(1,2,3-cd)pyrene	140	J	120	J	140	J	640	J	48	J	710	J
Dibenzo(a,h)anthracene	52	J	41	J	50	J	200	J	540	U	280	J
Benzo(g,h,i)perylene		100	J	110	J	150	J	610	J	540	U	660
Pesticides/PCBs												
alpha-BHC		82	J	6.5	24		88	2.8	U	12	J	18
beta-BHC		26	J	6.3	2.6	U	4.8	U	2.8	U	18	J
Heptachlor	130	2.1	U	6.8	J	24	4.8	U	2.8	U	2.2	U
Endosulfan I	3500000	2.1	U	2.6	U	2.6	U	4.8	U	2.8	U	2.2
Dieldrin	36	4.1	U	5.0	UJ	7.4	9.3	U	4.8	J	4.2	U
4,4'-DDE	1700	4.1	U	5.0	U	12	9.3	U	3.1	J	150	J
Endosulfan II	3500000	4.1	U	5.0	U	5.1	U	9.3	U	5.4	U	4.2
Endosulfan sulfate		4.1	U	5.0	U	5.1	U	9.3	U	5.4	U	4.6
Aroclor-1016	76	41	U	50	U	51	U	93	U	54	U	42
Aroclor-1221	76	84	U	100	U	100	U	190	U	110	U	86
Aroclor-1232	76	41	U	50	U	51	U	93	U	54	U	42
Aroclor-1242	76	41	U	50	U	51	U	93	U	400	42	U
Aroclor-1248	76	41	U	50	U	51	U	28000	54	U	1800	J
Aroclor-1254	76	3500	J	220	51	U	93	U	54	U	4200	3200
Aroclor-1260	76	41	U	50	U	51	U	93	U	54	U	2700
Dioxins (Total Toxicity Equ)											1.4	5.2
Inorganics					X140							
ALUMINUM		8790	15300	15300	121000	9740	10900	3760	14300	16100	15800	16400
ANTIMONY	230	0.77	UJ	0.98	UJ	1.1	J	1.6	J	0.98	U	2.6
ARSENIC		18.4	J	10.5	J	10.4	J	7.3	J	11.6	13.9	10.3
BARIUM	41000	359	198	182	721	80.4	246	53.1	J	1070	J	186
BERYLLIUM		0.83	0.88	0.77	0.86	0.72	B	0.91	B	0.39	0.67	0.84
CADMIUM	290	3.3	6.6	7.2	3.3	2.1	7.5	1.2	J	11.5	J	10.7
CALCIUM	82900	15000	16200	36700	58200	55600	57400	64800	17900	17900	59800	19400
CHROMIUM	2900	24.5	48.7	68.1	69.1	22.7	22.6	10.1	J	31.8	J	55.9
COBALT		7.7	9.4	8.4	6.2	13	B	12.1	B	8.6	7.4	9.7
COPPER	70.5	J	52.8	J	66.3	J	96.9	J	41	374	17.2	J
IRON	36200	27400	24400	13600	37100	27300	15200	28400	28400	26800	10900C	63300
LEAD	363	112	155	1870	40.9	673	31.0	2420	157	2420	157	2640
MAGNESIUM	7230	8130	9840	4200	17200	10300	16000	16000	16000	9250	9250	5850
MANGANESE	2900	3210	J	631	424	786	892	769	471	578	409	1040
MERCURY	170	0.26	0.41	0.76	0.080	U	0.08	U	0.24	0.080	U	0.33
NICKEL	12000	73.8	33.2	34.6	32.1	39.9	80.7	18.8	35.7	35.7	39.2	57.9
POTASSIUM	1380	J	2190	J	2470	J	1290	J	1990	2300	857	2280
SELENIUM	2900	1.3	1.5	U	2.0	1.5	U	3.3	1.8	1.4	U	1.3
SILVER	2900	1.4	1.3	2.1	0.54	1	B	0.9	B	0.30	U	2.6
SODIUM		318	456	470	2290	475	463	B	422	819	443	826
VANADIUM	4100	26.5	30.8	33.0	89.2	30.5	22.5	19.6	26.4	31.2	21.0	32.8
ZINC	170000	561	787	631	792	204	1120	98.3	2690	J	862	2590
CYANIDE	12000	0.12	R	0.15	R	0.15	R	0.15	U	0.12	R	0.35

The volatiles, semi-volatiles and pesticides/pcbs are shown in parts per billion.
The inorganics are shown in parts per million.

Table 3 cont.
Old LaSalle Dump Soil Sampling Analytical Results

SCDM Benchmark		X148	X149	X150	X151	X152	X153	X154	X155	X156	X157	
Volatiles												
Vinyl Chloride	310	13	U	85	U	13	U	14	U	16	UJ	
Bromomethane	820000	34	U	85	U	13	U	14	U	360	J	
Acetone	58000000	70	J	92	J	13	U	57	J	220	J	
Carbon Disulfide	58000000	3	J	85	U	3	J	14	U	11	J	
cis-1,2-Dichloroethene		10	J	85	U	13	U	14	U	2	J	
2-Butanone		13	U	85	U	13	U	14	U	28	J	
Benzene	20000	17	J	85	UJ	13	UJ	2	J	68	J	
Trichloroethene		120	85	U	13	U	1	J	8	J	24	
Methylcyclohexane		13	U	85	U	13	U	14	U	16	UJ	
Toluene	120000000	10	J	85	UJ	13	UJ	2	J	44	J	
Tetrachloroethene	11000	66	85	U	13	U	4	J	28	J	20	
Xylenes (total)	120000000	7	J	15	J	13	UJ	14	UJ	5	J	
Semi-Volatiles												
Benzaldehyde		430	U	32	J	1300	460	U	2400	U	29	
Acetophenone		430	U	560	U	880	460	U	2400	U	560	
4-Methylphenol		430	U	560	U	430	U	460	U	2400	U	
Naphthalene		63	J	560	U	110	J	460	U	2400	U	
2-Methylnaphthalene		38	J	560	U	64	J	460	U	2400	U	
1,1'-Biphenyl		15	J	560	U	140	J	460	U	74	J	
2-Chloronaphthalene	47000000	430	U	87	J	430	U	460	U	2400	U	
Acenaphthylene		27	J	41	J	240	J	19	J	2400	U	
Dibenzofuran		45	J	560	U	27	J	460	U	2400	U	
Fluorene	23000000	59	J	560	U	53	J	460	U	2400	U	
Hexachlorobenzene	360	430	U	560	U	430	U	460	U	150	J	
Phenanthrone		930	63	J	930	35	J	2400	U	560	U	
Anthracene	170000000	250	J	57	J	310	J	25	J	2400	U	
Carbazole		130	J	560	U	430	U	460	U	2400	U	
Fluoranthene		2200	150	J	1300	62	J	2400	U	90	J	
Pyrene	17000000	1800	220	J	1300	61	J	2400	U	110	J	
Benzo(a)anthracene		1300	95	J	1200	51	J	2400	U	64	J	
Chrysene		1400	140	J	1100	73	J	2400	U	97	J	
bis(2-Ethylhexyl)phthalate	42000	430	U	560	U	430	U	590	U	2400	U	
Benzo(b)fluoranthene		1800	110	J	1600	70	J	160	J	87	J	
Benzo(k)fluoranthene		1100	120	J	920	56	J	2400	U	60	J	
Benzo(a)pyrene	80	1400	140	J	1200	62	J	2400	U	78	J	
Indeno(1,2,3-cd)pyrene		1100	J	97	J	740	J	50	J	2400	U	
Dibenzo(a,h)anthracene		300	J	44	J	290	J	460	U	2400	U	
Benzo(g,h,i)perylene		1200	J	110	J	610	J	60	J	2400	U	
Pesticides/PCBs												
alpha-BHC		230	J	48		1100	J	50	6100	J	1400	
beta-BHC		44	U	2.9	U	22	U	2.4	U	1300	U	
Heptachlor	130	44	U	2.9	U	22	U	2.4	U	1300	U	
Endosulfan I	3500000	44	U	2.9	U	22	U	2.4	U	1300	U	
Dieldrin	36	86	U	5.6	U	43	U	4.6	U	2400	U	
4,4'-DDE	1700	86	U	5.6	U	43	U	4.6	U	2400	U	
Endosulfan II	3500000	86	U	5.6	U	43	U	4.6	U	2400	U	
Endosulfan sulfate		86	U	5.6	U	43	U	4.6	U	2400	U	
Aroclor-1016	76	860	U	56	U	430	U	46	U	24000	U	
Aroclor-1221	76	1700	U	110	U	880	U	93	U	49000	U	
Aroclor-1232	76	860	U	56	U	430	U	46	U	24000	U	
Aroclor-1242	76	860	U	56	U	430	U	46	U	24000	U	
Aroclor-1248	76	41000	J	4500		83000	J	7600	3300000	J	28000	
Aroclor-1254	76	860	U	56	U	430	U	46	U	24000	U	
Aroclor-1260	76	11000	J	170		3000	J	260	120000	J	21000	
Dioxins (Total Toxicity Equ)		282.3				1.7		0.9	1.9			
Inorganics												
ALUMINUM		11700		16900		9880		14800		69000		
ANTIMONY	230	7.3	J	1.0	UJ	2.9	J	1.9	J	14300	U	
ARSENIC		35.4		6.7		14.5		8.7		20.0		
BARIUM	41000	777	J	208	J	461	J	230	J	803	J	
BERYLLIUM		0.94		0.83		0.73		0.77		0.58		
CADMIUM	290	26.4	J	11.9	J	57.7	J	10.4	J	14.6	J	
CALCIUM	50500	17000		81000		15300		26300		22900		
CHROMIUM	2900	59.3	J	81.8	J	42.4	J	43.0	J	77.2	J	
COBALT		11.5		8.8		6.6		8.7		6.5		
COPPER	1310	J	78.9	J	169	J	65.5	J	545	J	191	J
IRON	86800	25900		20100		24100		93100		30600		
LEAD		1570		150		1110		207		1870		
MAGNESIUM		9910		8230		36200		8040		3310		
MANGANESE	2900	737		372		1040		582		759		
MERCURY	170	0.93		0.84		0.40		0.71		0.30		
NICKEL	12000	135		34.9		31.9		35.7		88.7		
POTASSIUM		1480		2810		1370		2080		1190		
SELENIUM	2900	1.2	U	1.7	J	1.2	U	1.3	U	1.5	U	
SILVER	2900	13.9		2.3		1.4		1.3		4.9		
SODIUM		655		531		603		398		602		
VANADIUM	4100	23.5		33.4		22.3		30.6		23.4		
ZINC	170000	2130		848		1190		1090		6890		
CYANIDE	12000	0.12	R	0.16	R	0.12	R	0.13	R	0.24	J	

The volatiles, semi-volatiles and pesticides/pcbs are shown in parts per billion.
The inorganics are shown in parts per million.

Table 4
Huse Lake Sediment Sample Analytical Results

Ecological Benchmark	X201	X202	X203	X204	X205	X206	X207	X208	X209	X210	X211	X212	X213	X214	
Pesticides/Pcbs															
alpha-BHC	6	55	53	120	150	140	41	25	13	5.9	7.5	6.3	58	110	4.3
beta-BHC	5	54	4.0	U 130	140	4.5	U 4.0	U 3.6	U 3.5	U 3.3	U 6.1	3.7	J 4.0	U 3.5	U 2.7
gamma-BHC (Lindane)	3.7	11	4.0	U 140	310	63	24	8.0	4.6	3.3	U 3.3	3.7	U 4.0	U 3.5	U 2.7
Heptachlor		3.5	U 4.0	U 4.2	U 5.0	U 4.5	U 4.0	U 3.6	U 3.5	U 3.3	U 3.3	U 3.7	U 4.0	U 3.5	U 2.7
Aldrin	2	3.5	U 4.0	U 4.2	U 5.0	U 4.5	U 4.0	U 3.6	U 3.5	U 3.3	U 3.3	U 3.7	U 4.0	U 3.5	U 2.7
Dieldrin	2	6.9	U 7.7	U 8.1	U 9.7	U 8.7	U 7.7	U 7.0	U 6.7	U 6.5	U 6.4	U 7.2	U 7.7	U 6.9	U 5.2
Endrin	3	6.9	U 7.7	U 8.1	U 9.7	U 8.7	U 7.7	U 7.0	U 6.7	U 6.5	U 6.4	U 7.2	U 7.7	U 6.9	U 5.2
4,4'-DDT	7	6.9	U 7.7	U 8.1	U 9.7	U 8.7	U 7.7	U 7.0	U 6.7	U 6.5	U 6.4	U 7.2	U 7.7	U 6.9	U 5.2
Methoxychlor	19	35	U 40	U 350	50	U 45	U 40	U 36	U 35	U 33	U 33	U 37	U 40	U 35	U 27
Aroclor-1016	7	69	U 77	U 80	U 97	U 87	U 77	U 70	U 67	U 65	U 63	U 72	U 77	U 69	U 52
Aroclor-1221		140	U 160	U 160	U 200	U 180	U 160	U 140	U 140	U 130	U 130	U 150	U 160	U 140	U 100
Aroclor-1232		69	U 77	U 80	U 97	U 87	U 77	U 70	U 67	U 65	U 63	U 72	U 77	U 69	U 52
Aroclor-1242		69	U 77	U 80	U 97	U 87	U 77	U 70	U 67	U 65	U 63	U 72	U 5200	4700	52
Aroclor-1248	30	3300	4600	13000	15000	9900	3200	2700	870	320	480	370	77	U 69	U 160
Aroclor-1254	60	5100	4100	13000	10000	4400	2800	2900	950	440	680	1300	4100	1400	660
Aroclor-1260	5	69	U 77	U 80	U 97	U 87	U 77	U 70	U 67	U 65	U 63	U 72	U 77	U 69	U 52
Inorganics															
ALUMINUM		22400	19500	20500	21100	19600	21700	20700	22100	15900	18300	18400	22000	21900	19100
ANTIMONY		1.3	UJ 1.4	UJ 1.7	J 3.8	J 1.4	UJ 1.5	J 1.2	UJ 1.3	J 1.9	J 1.1	UJ 1.3	UJ 1.3	J 1.3	J
ARSENIC	6	14.3	11.4	15.2	14.7	14.6	16.4	11.9	10.7	10.1	9.3	10.6	12.0	9.9	8.9
BARIUM		187	206	199	232	188	200	194	183	144	175	185	208	202	181
BERYLLIUM		1.1	1.0	1.0	1.1	1.0	1.1	1.1	1.0	0.82	0.96	0.96	1.1	1.0	0.97
CADMIUM	0.6	5.0	5.5	6.2	13.6	5.9	9.2	7.0	4.8	4.0	6.2	6.5	5.9	5.9	5.3
CALCIUM		41600	46500	33800	19200	31500	29200	25900	31600	23600	18700	33600	29900	22200	12600
CHROMIUM		42.9	J 41.3	J 42.1	J 47.2	J 42.9	J 43.4	J 51.1	J 43.9	J 37.8	J 45.7	J 43.6	J 43.5	J 43.6	J 42.6
COBALT	50	10.4	10.4	10.6	10.4	11.6	11.2	11.4	10.4	10.4	10.7	11.8	10.8	10.7	8.7
COPPER	16	47.5	J 53.4	J 87.0	J 89.4	J 81.5	J 66.9	J 62.3	J 50.7	J 40.5	J 51.6	J 53.3	J 54.1	J 58.5	J 41.1
IRON	20000	35800	36300	37700	42000	37400	34700	31600	31800	26000	29200	31100	36600	33500	25500
LEAD	31	77.1	139	159	176	117	125	110	70.0	55.1	84.2	79.0	128	97.3	86.8
MAGNESIUM		9490	8940	8420	8130	8360	9100	9330	9910	8650	9350	11200	8450	7990	8130
MANGANESE	460	782	J 894	J 774	J 866	J 885	J 728	J 599	J 676	J 573	J 629	J 970	J 791	J 651	J 436
MERCURY	0.2	0.20	0.23	0.22	0.35	0.25	0.34	0.34	0.18	0.22	0.31	0.29	0.23	0.24	0.50
NICKEL	16	37.2	J 36.7	J 43.8	J 54.6	J 44.7	J 40.0	J 43.9	J 36.4	J 31.1	J 39.6	J 37.6	J 44.6	J 41.4	J 30.3
POTASSIUM		3630	3010	3310	3150	3140	3530	3180	3590	2680	2620	2950	3240	3030	2690
SELENIUM		1.6	1.7	1.9	1.8	2.0	1.4	U 1.4	U 1.4	1.5	1.6	1.5	U 1.6	1.4	U 1.1
SILVER	0.5	2.6	2.3	2.5	2.8	2.3	2.4	2.4	2.0	2.5	2.2	2.5	2.4	2.1	1.8
SODIUM		436	405	376	324	419	352	361	306	474	390	442	450	443	316
VANADIUM		48.7	44.3	46.7	46.8	47.2	47.7	43.8	44.7	36.1	41.9	42.0	50.5	46.7	38.7
ZINC	120	643	628	830	1080	710	1260	857	548	437	619	604	787	652	850
CYANIDE	0.1	0.12	UJ 0.18	J 0.13	UJ 0.12	UJ 0.15	J 0.12	UJ 0.11	UJ 0.14	J 0.19	J 0.11	J 0.12	UJ 0.12	UJ 0.11	UJ 0.090

The Pesticides/PCBs are shown in parts per billion.

The Inorganics are shown in parts per million.

Table 4
Huse Lake Sediment Sample Analytical Results

Ecological Benchmark	X215	X216	X217	X218	X219	X220	X221	X222	X223	X224	X225	X226	X227	X228											
Pesticides/Pcbs																									
alpha-BHC	6	6.2	4.6	6.3	8.5	29	19	21	23	7.1	J	20	9.7	7.6	6.8	5.2									
beta-BHC	5	3.0	U	2.8	U	3.0	U	41	3.7	U	4.2	U	3.7	U	4.1	U	6.2	J	32	16	6.9	12	4.6		
gamma-BHC (Lindane)	3.7	3.0	U	2.8	U	3.0	U	8.1	7.5	4.2	U	5.3	6.4	3.3	UJ	6.6	3.9	3.1	U	3.5	U	3.3	U		
Heptachlor		3.0	U	2.8	U	3.0	U	2.9	U	3.7	U	4.2	U	3.7	U	4.1	U	3.3	UJ	3.3	U	3.5	U		
Aldrin	2	3.0	U	2.8	U	3.0	U	2.9	U	3.7	U	4.2	U	3.7	U	4.1	U	3.3	UJ	3.3	U	3.5	U		
Dieldrin	2	5.8	U	5.5	U	5.9	U	5.7	U	7.2	U	8.1	U	7.2	U	7.9	U	6.4	UJ	6.4	U	6.1	U		
Endrin	3	5.8	U	5.5	U	5.9	U	5.7	U	7.2	U	8.1	U	7.2	U	7.9	U	6.4	UJ	6.4	U	6.1	U		
4,4'-DDT	7	5.8	U	5.5	UJ	5.9	U	5.7	U	7.2	U	8.1	U	7.2	U	7.9	U	6.4	UJ	6.4	U	6.1	U		
Methoxychlor	19	30	U	28	U	30	U	29	U	37	U	41	U	37	U	40	U	33	UJ	33	U	31	U		
Aroclor-1016	7	58	U	55	U	59	U	57	U	72	U	80	U	72	U	79	U	63	UJ	63	U	61	U		
Aroclor-1221		120	U	110	U	120	U	120	U	150	U	160	U	150	U	160	U	130	UJ	130	U	120	U		
Aroclor-1232		58	U	55	U	59	U	57	U	72	U	80	U	72	U	79	U	63	UJ	63	U	61	U		
Aroclor-1242		58	U	55	U	59	U	57	U	72	U	80	U	72	U	79	U	63	UJ	63	U	61	U		
Aroclor-1248	30	770	290	570	720	2000	880	1100	1100	300	J	1300	690	340	760	250									
Aroclor-1254	60	570	370	1100	1400	2500	1300	1600	1500	430	J	1300	620	480	1000	380									
Aroclor-1260	5	58	U	55	U	59	U	57	U	72	U	80	U	72	U	79	U	63	UJ	63	U	61	U		
Inorganics																									
ALUMINUM		13600	17000	17200	21600	21800	20700	20600	19200	21900	18400	18200	18200	18900	19700										
ANTIMONY		1.1	J	1.8	J	1.0	UJ	1.2	UJ	1.5	UJ	1.3	J	1.3	UJ	1.3	UJ	1.2	UJ	1.1	J	1.1	UJ	1.1	UJ
ARSENIC	6	7.6	13.2	8.6	11.8	12.3	9.6	14.1	8.3	7.8	8.6	7.8	7.4	10.0	6.1										
BARIUM		133	184	171	202	200	195	273	174	185	160	187	166	210	182										
BERYLLIUM		0.77	0.90	1.0	1.2	0.99	1.0	1.2	0.93	1.0	0.89	0.93	0.91	1.1	1.0										
CADMIUM	0.6	2.0	8.2	6.4	6.4	3.6	4.1	16.1	4.0	3.9	3.9	4.4	4.6	8.8	5.4										
CALCIUM		7530	19500	13500	16100	41500	32200	13400	38500	35200	32300	22800	28500	15900	21000										
CHROMIUM		25.7	J	53.3	J	36.4	J	45.6	J	41.4	J	40.8	65.9	37.6	42.0	37.0	39.7	41.0	67.7	46.9					
COBALT	50	11.0	10.0	10.3	12.0	10.5	10.3	11.3	9.9	10.4	9.7	10.0	10.0	11.4	10.8										
COPPER	16	26.4	J	51.1	J	36.4	J	43.1	J	44.5	J	47.0	J	81.7	J	44.3	J	44.9	J	42.4	J	44.6	J	68.4	J
IRON	20000	27500	25500	28200	33100	32000	31100	28600	29500	30900	27900	27900	27500	28300	29500										
LEAD	31	28.2	110	83.8	113	65.7	74.9	187	60.2	63.4	55.7	65.9	57.3	121	74.0										
MAGNESIUM		5040	10000	7790	9160	9550	8380	6910	9450	9360	9150	8160	9180	8120	8460										
MANGANESE	460	552	J	574	J	583	J	733	J	732	J	729	J	438	J	784	J	737	J	699	J	642	J	735	J
MERCURY	0.2	0.11	0.51	0.60	0.59	0.12	U	0.26	0.85	0.25	0.22	0.19	0.22	0.56	0.28										
NICKEL	16	28.6	J	38.2	J	32.7	J	38.9	J	34.8	J	38.4	54.5	33.4	35.7	32.1	36.4	34.3	52.7	43.3					
POTASSIUM		2290	2650	2260	2810	3490	3130	3110	3030	3600	2930	2680	2890	2620	2850										
SELENIUM		1.0	U	1.4	1.7	2.4	1.7	U	1.5	1.5	U	1.7	1.5	U	1.5	1.3	U	1.3	U	1.3	U	1.3	U		
SILVER	0.5	2.1	2.1	1.8	2.3	2.1	1.9	2.6	1.8	1.9	1.7	1.8	1.9	2.4	1.9										
SODIUM		299	299	401	382	446	437	435	425	410	353	355	412	327	322										
VANADIUM		32.4	39.6	37.8	47.8	44.7	39.8	43.5	37.5	41.9	35.8	36.2	34.6	41.6	40.5										
ZINC	120	277	585	1030	1130	535	603	1620	485	506	440	525	439	932	567										
CYANIDE	0.1	0.080	UJ	0.090	UJ	0.090	UJ	0.11	UJ	0.14	UJ	0.11	U	0.12	U	0.18	0.12	U	0.11	0.16	J	0.12	J	0.25	J

The Pesticides/PCBs are shown in parts per billion.

The Inorganics are shown in parts per million.

Table 4
Huse Lake Sediment Sample Analytical Results

Ecological Benchmark	X229	X230	X231	X232	X233	X234	X235	X236	X237	X238	X239	X241	X242
Pesticides/Pcbs													
alpha-BHC	6	3.1	2.9	U	3.4	31	28	21	13	6.2	4.2	2.8	U
beta-BHC	5	2.9	U	2.9	U	2.8	45	25	14	15	5.0	3.4	2.8
gamma-BHC (Lindane)	3.7	2.9	U	2.9	U	2.8	8.8	5.0	3.9	3.6	3.2	U	3.0
Heptachlor		2.9	U	2.9	U	2.8	3.8	U	3.5	U	3.3	U	3.2
Aldrin	2	2.9	U	2.9	U	2.8	3.8	U	3.5	U	3.3	U	3.2
Dieldrin	2	5.6	U	5.6	U	5.4	U	7.3	U	6.9	U	6.7	U
Endrin	3	5.6	U	5.6	U	5.4	U	7.3	U	6.9	U	6.7	U
4,4'-DDT	7	5.6	UJ	5.6	U	5.4	U	7.3	U	6.9	U	6.5	U
Methoxychlor	19	29	U	29	U	28	U	38	U	35	U	35	U
Aroclor-1016	7	56	U	56	U	54	U	73	U	69	U	67	U
Aroclor-1221		110	U	110	U	110	U	150	U	140	U	140	U
Aroclor-1232		56	U	56	U	54	U	73	U	69	U	67	U
Aroclor-1242		56	U	56	U	54	U	73	U	69	U	67	U
Aroclor-1248	30	160		56	U	280		1900		1300		920	
Aroclor-1254	60	150		100		400		2900		2100		1500	
Aroclor-1260	5	56	U	56	U	54	U	73	U	69	U	67	U
Inorganics													
ALUMINUM		18700	9600	16700	UJ	22500	21800	19800	20700	18200	17800	21900	22600
ANTIMONY		1.1	UJ	0.81	UJ	0.92	UJ	1.3	UJ	1.1	UJ	1.1	UJ
ARSENIC	6	6.7		6.2		10.7		9.3		9.6		10.1	
BARIUM		223	82.8	130		200		207		178		203	
BERYLLIUM		1.1	0.57	0.86		1.1		1.1		0.98		1.0	
CADMIUM	0.6	9.3		1.3		3.6		5.0		5.4		7.7	
CALCIUM		13300	10500	10600		40500		36700		18700		26000	
CHROMIUM		41.4	16.2	31.0		43.5		42.6		43.4		43.6	
COBALT	50	9.0	7.9	9.2		11.1		10.9		10.3		10.8	
COPPER	16	42.9	J	16.8	J	32.2	J	48.6	J	48.2	J	46.8	J
IRON	20000	27100		21000		27800		36600		32200		28700	
LEAD	31	103		26.3		51.7		73.7		80.6		69.8	
MAGNESIUM		6810	4840	7240		9360		9120		8050		9000	
MANGANESE	460	501	J	935	J	621	J	830	J	763	J	486	J
MERCURY	0.2	0.37		0.070	U	0.17		0.20		0.17		0.34	
NICKEL	16	31.6		19.0		27.3		38.8		39.3		39.2	
POTASSIUM		2530	1440	2380		3510		3350		2700		3140	
SELENIUM		1.3	0.92	U	1.0	U	1.7		1.5	U	1.3	U	1.3
SILVER	0.5	1.9		1.1		1.6		2.1		1.9		2.0	
SODIUM		314	219	278		437		441		346		386	
VANADIUM		37.3	22.6	34.0		44.4		43.3		40.3		40.6	
ZINC	120	916		245		671		612		630		706	
CYANIDE	0.1	0.17	J	0.070	U	0.090	J	0.12	U	0.12	U	0.18	J

The Pesticides/PCBs are shown in parts per billion.

The Inorganics are shown in parts per million.

Table 5
Total PCB and Dioxin Levels in Samples
Collected From Old LaSalle Dump

	X101	X102	X103	X104	X105	X106	X107	X108	X109	X110
Total PCBs	—	97	10.7	1614	9.1	120	35.1	141	31.1	200
Sample Depth	10'	5'	9'	3'	6'	3'	6'	2'	8'	1'
	X111	X112	X113	X114	X115	X116	X117	X118	X119	X120
Total PCBs	13.8	—	220	49.9	0.1	0.9	1.6	0.1	0.7	—
Sample Depth	12'	4'	6'	6'	4'	11'	4'	12'	5'	6'
	X121	X122	X123	X124	X125	X126	X127	X128	X129	X130
Total PCBs	14.3	27.8	260	5400	21	1.5	57.8	—	—	0.25
Sample Depth	14'	10'	4'	5'	9'	8'	4'	10'	3'	8'
	X131	X132	X133	X134	X135	X136	X137	X138	X139	X140
Total PCBs	2.5	3.4	3.4	3.7	—	7	3.5	0.2	—	28
Sample Depth	1'	15'	10'	9'	3'	3.5'	3.5'	16'	12'	3'
	X141	X142	X143	X144	X145	X146	X147	X148	X149	X150
Total PCBs	0.4	1.8	3.2	74.3	0.4	4.2	4.2	52	4.6	86
Dioxins				1.36		5.23		282.31		1.72
Sample Depth	13'	5'	17'	5'	14'	4'	11'	5'	10'	4.5'
	X151	X152	X153	X154	X155	X156	X157			
Total PCBs	7.8	3420	2921	187	0.1	0.6	—			
Dioxins	0.93		1.88							
Sample Depth	5.5'	3.5'	5'	13'	6"	6"	6"			

All PCB levels shown in parts per million.

All dioxin levels shown are Total Toxicity Equivalence levels and are shown in parts per billion.

Table 6**PCB Results from Sediment Samples Collected from Huse Lake**

	X201 shallow	X202 shallow	X203 shallow	X204 shallow	X205 shallow	X206 shallow	X207 shallow	X208 shallow	X209 shallow	X210 shallow	
Total PCBs	8.4	8.7	26	25	14.3	5.6	5.6	1.8	0.8	1.2	
	X211 shallow	X212 deep	X213 deep	X214 deep	X215 deep	X216 deep	X217 shallow	X218 shallow	X219 shallow	X220 shallow	
Total PCBs	1.7	9.3	6.1	0.8	1.3	0.7	1.7	2.1	4.5	2.2	
	X221 shallow	X222 shallow	X223 shallow	X224 shallow	X225 shallow	X226 shallow	X227 shallow	X228 shallow	X229 deep	X230 deep	
Total PCBs	2.7	2.6	0.7	2.6	0.7	0.8	1.8	0.6	0.3	0.2	
	X231 deep	X232 shallow	X233 shallow	X234 shallow	X235 shallow	X236 shallow	X237 deep	X238 deep	X239 deep	X241 shallow	X242 shallow
Total PCBs	0.7	4.1	3.4	2.4	1.5	0.6	0.6	0.08	0.6	0.2	0.1

All concentrations shown in parts per million.

Shallow samples collected from depth of approximately 0 to 1 foot in sediment.

Deep samples collected from depth of approximately 2.5 to 3.5 feet in sediment.

Appendix C

Target Compound List

TARGET COMPOUND LIST

Volatile Target Compounds

Chloromethane	1,2-Dichloropropane
Bromomethane	cis-1,3-Dichloropropene
Vinyl Chloride	Trichloroethene
Chloroethane	Dibromochloromethane
Methylene Chloride	1,1,2-Trichloroethane
Acetone	Benzene
Carbon Disulfide	trans-1,3-Dichloropropene
1,1-Dichloroethene	Bromoform
1,1-Dichloroethane	4-Methyl-2-pentanone
1,2-Dichloroethene (total)	2-Hexanone
Chloroform	Tetrachloroethene
1,2-Dichloroethane	1,1,2,2-Tetrachloroethane
2-Butanone	Toluene
1,1,1-Trichloroethane	Chlorobenzene
Carbon Tetrachloride	Ethylbenzene
Vinyl Acetate	Styrene
Bromodichloromethane	Xylenes (total)

Base/Neutral Target Compounds

Hexachloroethane	2,4-Dinitrotoluene
bis(2-Chloroethyl) Ether	Diethylphthalate
Benzyl Alcohol	N-Nitrosodiphenylamine
bis (2-Chloroisopropyl) Ether	Hexachlorobenzene
N-Nitroso-Di-n-Propylamine	Phenanthrene
Nitrobenzene	4-Bromophenyl-phenylether

Hexachlorobutadiene	Anthracene
2-Methylnaphthalene	Di-n-Butylphthalate
1,2,4-Trichlorobenzene	Fluoranthene
Isophorone	Pyrene
Naphthalene	Butylbenzylphthalate
4-Chloroaniline	bis(2-Ethylhexyl)Phthalate
bis(2-chloroethoxy)Methane	Chrysene
Hexachlorocyclopentadiene	Benzo(a)Anthracene
2-Chloronaphthalene	3-3'-Dichlorobenzidene
2-Nitroaniline	Di-n-Octyl Phthalate
Acenaphthylene	Benzo(b)Fluoranthene
3-Nitroaniline	Benzo(k)Fluoranthene
Acenaphthene	Benzo(a)Pyrene
Dibenzofuran	Indeno(1,2,3-cd)Pyrene
Dimethyl Phthalate	Dibenz(a,h)Anthracene
2,6-Dinitrotoluene	Benzo(g,h,i)Perylene
Fluorene	1,2-Dichlorobenzene
4-Nitroaniline	1,3-Dichlorobenzene
4-Chlorophenyl-phenylether	1,4-Dichlorobenzene

Acid Target Compounds

Benzoic Acid	2,4,6-Trichlorophenol
Phenol	2,4,5-Trichlorophenol
2-Chlorophenol	4-Chloro-3-methylphenol
2-Nitrophenol	2,4-Dinitrophenol
2-Methylphenol	2-Methyl-4,6-dinitrophenol
2,4-Dimethylphenol	Pentachlorophenol
4-Methylphenol	4-Nitrophenol
2,4-Dichlorophenol	

Pesticide/PCB Target Compounds

alpha-BHC	Endrin Ketone
beta-BHC	Endosulfan Sulfate
delta-BHC	Methoxychlor
gamma-BHC (Lindane)	alpha-Chlordane
Heptachlor	gamma-Chlordane
Aldrin	Toxaphene
Heptachlor epoxide	Aroclor-1016
Endosulfan I	Aroclor-1221
4,4'-DDE	Aroclor-1232
Dieldrin	Aroclor-1242
Endrin	Aroclor-1248
4,4'-DDD	Aroclor-1254
Endosulfan II	Aroclor-1260
4,4'-DDT	

Inorganic Target Compounds

Aluminum	Manganese
Antimony	Mercury
Arsenic	Nickel
Barium	Potassium
Beryllium	Selenium
Cadmium	Silver
Calcium	Sodium
Chromium	Thallium
Cobolt	Vanadium
Copper	Zinc

Iron	Cyanide
Lead	Sulfide
Magnesium	